

## **Historic, Archive Document**

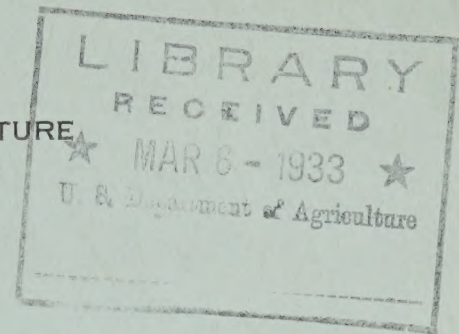
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UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF AGRICULTURAL ENGINEERING  
DIVISION OF PLANS AND SERVICE



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TENTATIVE  
SELECTION OF FARM BUILDING PLANS  
for inclusion in  
THE PLAN EXCHANGE SERVICE

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Compiled by  
Division of Plans and Service  
Bureau of Agricultural Engineering  
U. S. D. A.

-----  
January, 1933.







TENTATIVE SELECTION  
OF  
FARM BUILDING PLANS  
For Use In  
PLAN EXCHANGE SERVICE

In conformity with recommendations of the College Division of the American Society of Agricultural Engineers made on behalf of the State Agricultural Colleges and their Cooperating Extension Services, the Bureau of Agricultural Engineering and the Cooperative Extension Service, U.S.D.A., as coordinating agencies, have selected the 289 farm building designs described in the accompanying list from 890 plans submitted by the Agricultural Engineering and other Departments of State Colleges and those prepared by the Bureau of Agricultural Engineering, U.S.D.A., as a tentative basis of a Plan Exchange Service.

The purpose of the Plan Exchange Service is to make available to any of the cooperating agencies such plans of other agencies as may be mutually applicable to their respective State building plan services, thus eliminating duplication of effort and expense in the preparation of farm building plans, and at the same time promoting the wider distribution of new designs.

The list is being sent to the Agricultural Engineering Departments and Extension Services of State Agricultural Colleges in order that each interested agency may select designs, prepared by other cooperating agencies, which are adaptable to its own building plan service. Participation by the State agencies in this cooperative effort is entirely voluntary but it is to be hoped that each agency will actively engage in the effort to improve the State and Federal plan services now in operation.

USE OF THE LIST

Each agency desiring to cooperate is requested to advise the Division of Plans and Service, Bureau of Agricultural Engineering, U.S.D.A., as to the identity of selected designs listed which are adaptable for use in its own state, and also to indicate which of the comparable designs are considered better adapted to its own use than the corresponding selected plan. Designs designated by a number of agencies for distribution through the Plan Exchange Service will be included in a revised descriptive list which will be circulated in order that each agency may order Vandykes of the plans it desires to use in its own service. The list will always be subject to revision or additions as new designs are made available or as it may be found desirable to include existing designs other than those listed in the tentative selection.



In order that the Plan Exchange Service may be put into operation as soon as possible it is requested that each agency make its selection promptly and advise the Division of Plans and Service, Bureau of Agricultural Engineering, U.S.D.A., not later than April 15, 1933.

It is impracticable to supply prints of all the designs listed to each agency in order that comparisons might be made. It is thought that most of the agencies concerned are more or less conversant with the designs of other states and will recognize those in which they may be interested from the descriptions. Where this is not the case it is suggested that prints of the designs which are desired for study be obtained from the respective originating agencies.

If the response to this cooperative effort is sufficient to warrant further procedure, the original tracings of the selected designs will be borrowed of the originating agencies. Vandyke negatives will be prepared and filed with the depository in Washington. Vandyke positives, from which blueprints can be obtained, will be made available to the cooperating agencies desiring them. An example (title block only) of the Vandykes to be furnished is attached to the accompanying list with a blueprint made from the Vandyke. It will be seen that, upon receipt of the Vandyke, it will be necessary for the interested agency to insert only its own design number before blueprints are made. The Vandyke may be used in making blueprints just as an original linen tracing with some adjustment as to time of exposure. If the Vandyke is coated with "Transperanto," or other similar oil, the time of exposure is reduced.

It is highly desirable that certain standards of presentation of designs which have been set up be maintained in the Plan Exchange Service. The sample title block appended to the list is essentially that adopted by the American Society of Agricultural Engineers, slight modifications having been made to facilitate substitution for original titles.

#### METHOD OF SELECTING THE PLANS

The selection of plans was based upon consideration of design and physical condition. For scoring purposes approximate scales under each head were adopted.

The plans were first rated upon the relative merit of design as follows:



## DESIGN

|  |             |
|--|-------------|
| Popularity - or probable regional applicability - -  | 50%         |
| Comprehensiveness - or inclusion of details and suggested variations - - - - -                                     | 20%         |
| Technical reliability - or apparent integrity of engineering design - - - - -                                      | 20%         |
| Preference to State of origin - in cases where a design was copied or adapted from that of another State - - - - - | 10%         |
|  | <u>100%</u> |

Designs of approximately equal merit were then rated with respect to physical condition as follows:

## PHYSICAL CONDITION

|   |             |
|---|-------------|
| Size of sheet - standard or subject to trimming to standard - - - - -         | 25%         |
| Number of sheets - preference to least number - -                             | 25%         |
| Condition of linen surface and ink lines as affecting reproduction - - - - -  | 20%         |
| Execution - quality of draftsmanship, and suitability for reduction - - - - - | 20%         |
| Inclusion of bill of materials and perspective - -                            | 10%         |
|   | <u>100%</u> |

The plans are listed in accordance with the "Subject Matter Classification." Under each classification there is a descriptive list of selected plans and a table of selected and other comparable plans that were submitted.

In selecting designs for inclusion in the Plan Exchange Service it was the primary thought to confine the selection to such number of designs as will facilitate handling and expedite the operation of the service and yet cover a wide field with the smallest possible number of drawings. With this in view stress was placed on the size of drawings and the number of sheets composing a set.

Most of the plans submitted were on sheets approximating 17"x 22". Large sheets and very small drawings of which a number were required to present a design, frequently otherwise acceptable, were rated low for the present with the thought that they will be revised later by the originating agency in accordance with the accepted standards of presentation.

Symbols employed in the list are as follows:

B - indicates a drawing of standard size (17"x 22")

C - indicates a drawing of standard size (11"x 17")

D - indicates a drawing of standard size (8 $\frac{1}{2}$ "x 11")

B-2 - indicates two sheets of B size. Other combinations of size and number of sheets are indicated in similar manner.

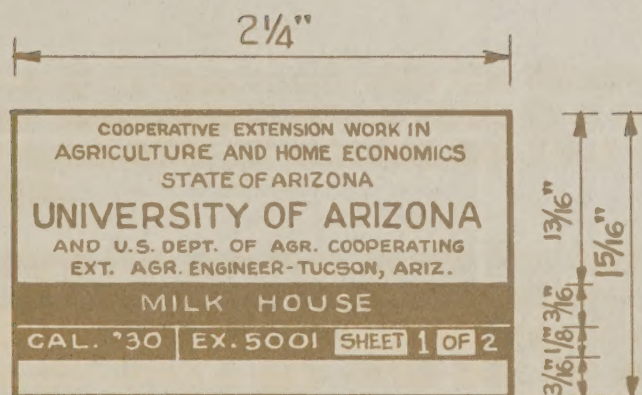
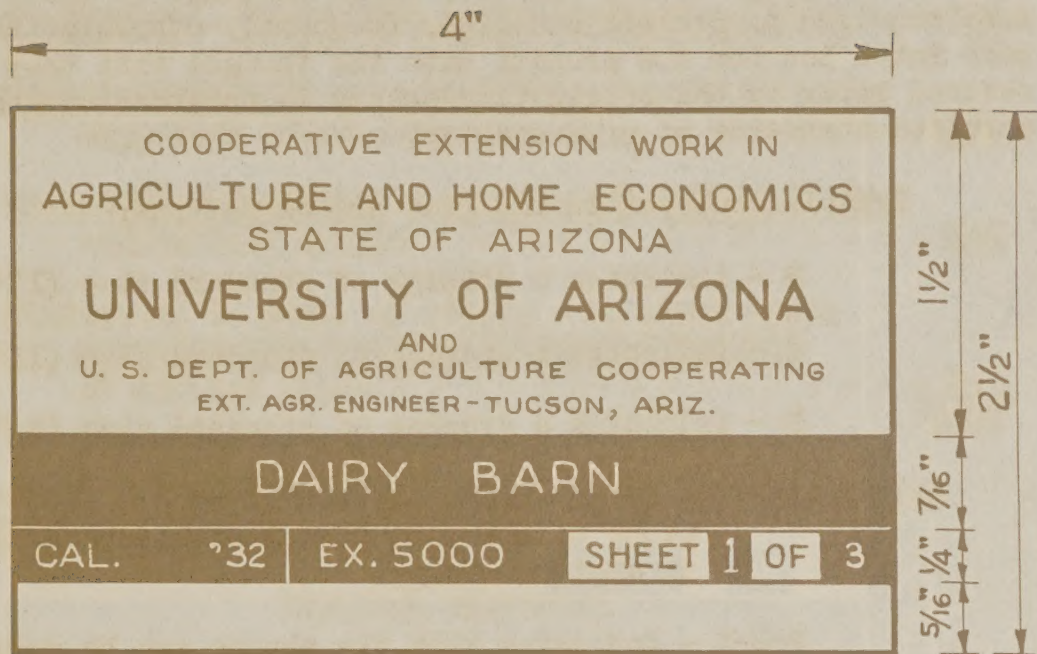
B-2-X - indicates that the sheets can be reduced to standard B size.

P - in combination with other symbols indicates that a perspective is included.

B.M. on Plan - indicates a bill of materials on drawing.

The Division of Plans and Service, Bureau of Agricultural Engineering, U. S. Department of Agriculture, Washington, D. C. will be the depository for the plans and will conduct the Exchange Service.

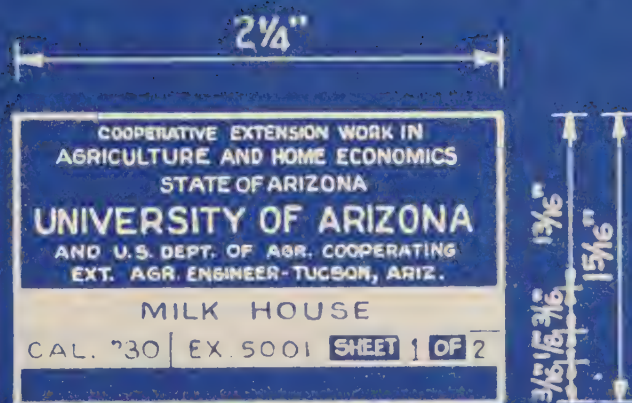
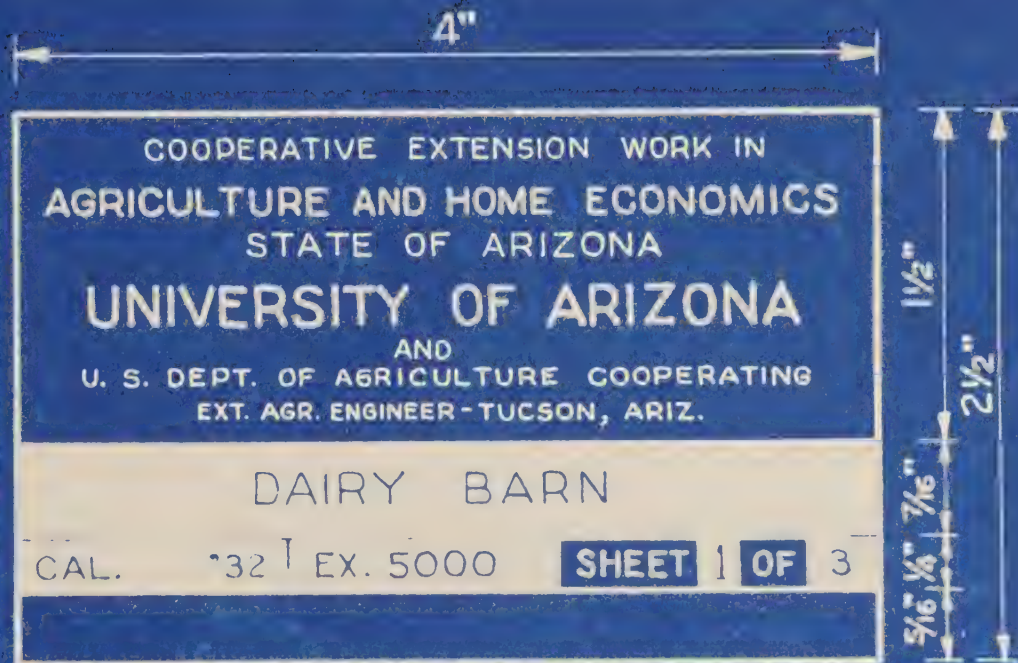
















# 11.3 MACHINERY

## U.S.D.A.

|      |  |
|------|--|
| 2011 | Portable hay derrick, swinging cantilever. |
| 2086 | " " " " boom.                              |
| 668  | Log roller                                 |

## Illinois

|           |  |       |
|-----------|--|-------|
| C-240-1-1 | Seed Disinfecting Machine  | B-1   |
|           | Oil barrel mounted like a concrete mixer operated by hand crank. |       |
| C-191-2-1 | Seed Germinator 2'6"x 3'0"x 5'8"                                 | B-2-P |
|           | Nine trays heated by electric lights.                            |       |

## Massachusetts

|     |   |
|-----|---|
| --- | Counter-balanced elevator; capacity 1 bbl. of potatoes. |
|-----|---|

## North Carolina

|     |  |
|-----|--|
| 59  | Drying plant for fruits and vegetables, cabinet 5'x 6'x 5'8" high, gable roof; sliding trays; sheet metal heater extends through bottom. |
| 125 | Lespedeza seed attachment for mower.   |
| 129 | Clod crusher for fertilizer; spike tooth roller in trough.   |

## Ohio

|           |   |                       |
|-----------|---|-----------------------|
| ---       | Three-horse eveners for wagon (without shifting tongue) |                       |
| 733-11-11 | A low-down silage rack                                  | B-1-X-P.              |
| 731-01-11 | One-man hay loading rack                                | B-1-X-P.              |
| 731-09-11 | Flat-bottom hay rack                                    | B-1-X-P B.M. on Plan. |
| 731-10-11 | Basket hay rack   | B-1-X-P B.M. on Plan. |
| 32-91-11  | Bag holder.   |                       |

## Texas

|     |                                   |              |
|-----|-----------------------------------|--------------|
| 161 | Hay baler, for samples (homemade) | B.M. on Plan |
|-----|-----------------------------------|--------------|

## Virginia

|     |                              |                      |
|-----|------------------------------|----------------------|
| N-4 | Lime spreader (homemade)     |                      |
| N-5 | Improved Rag Doll Germinator | B-1-X-P B.M. on Plan |

## Selected Designs and Comparable Designs Not Selected

| <u>Selected</u> | <u>Not Selected</u> |
|-----------------|---------------------|
| U.S. D.A. 2011  | :                   |
| " 2086          | ;                   |
| " 668           | :                   |
| Ill. C-240-1-1  | :                   |
| " C-191-2-1     | :                   |
| Mass. ---       | :                   |
| N. C. 59        | :                   |
| " 125           | : Va. N-27          |
| " 129           | :                   |
|                 | :                   |

Continued

| <u>Selected</u> | <u>Not Selected (Comparable)</u>                |
|-----------------|---|
| Ohio X          | :U.S.D.A. 1239                                  |
| " 733-11-11     | :Ill. C-224-1                                   |
| " 733-01-11     | :   |
| " 731-09-11     | :   |
| " 731-10-11     | :U S.D.A. 1409; Ill. C-107-1-1                  |
| " 32-91-11      | :   |
| Texas 161       | :   |
| Va. N-4         | :Iowa D-770-4-1611                              |
| " N-5           | :Ohio 32-09-11                                  |
|                 | :   |
|                 | : Others:                                       |
|                 | : Iowa C-539-1195, D-671-2-1349; Ky. L-4-124-1; |
|                 | : N. C. 155; N.D. 59-1-1; Ohio 35-98-11.        |
|                 | :   |
|                 | :   |



# 11.71 FARM HOUSES

## Classified by Number of Stories and Rooms

(Note: Figures in brackets are the designating numbers of designs shown in the collection of 23 sketches of "Representative Farm Houses," submitted to the President's Conference on Home Building and Home Ownership.)

### 1-Story Houses

#### 2 Rooms

#### U.S.D.A.

1009 18'x 32' (2 sheets 20"x27")  
(3) Combined living room & kitchen, pantry, bath, one bed room, small front porch.

2677 14'x 36' (1 sheet 20"x27")  
Tenant House, gable roof extending over front porch, vertical boards & battens, chimney on shelf. For Southern plantations.

#### 3 Rooms

1014 19'x 25' (2 sheets 20"x27")  
(4) Gable roof, combined kitchen & dining room with pantry and rear entrance, 2 bed rooms with closets between. Small front porch.

#### 4 Rooms

1017 30'6"x 21'0" (3 sheets 20"x 27")  
(7) Gable roof, combined kitchen & dining room, 2 bed rooms with closets between, bath, rear screened porch with stairs to cellar.

2622 24'x 36' (1 sheet 20"x27", P)  
(6) Tenant house, gable roof, vertical boards & battens, pier foundations, chimneys on shelves. For Southern plantations.

2671 24'x 28' (1 sheet 20"x 27", P)  
Tenant house, gable roof, vertical boards & battens, pier foundations, chimney on shelves, For Southern plantations.

#### 5 Rooms

522 28'x 36' (3 sheets 20"x 27")  
(9) Gable roof, living room, dining room, kitchen, bath, 2 bed rooms, sleeping porch, small cellar; front & rear porches. Ell 20'x16'.

1071 20'x 32' (2 sheets 20"x 27")  
(2) Hip roof, combined living & dining room with fireplace, 2 bed rooms with closets between, kitchen; enclosed porch.

1195 29'x 49' (3 sheets 20"x 27")  
Living room, dining room, 2 bed rooms with bath between, closets, kitchen, pantry; porch extended to rear, pass cupboard to dining room, cellar under 1/2 of house, front porch.

5 Rooms (Cont'd.)Alabama  
B512

64'x 42'

B-5

Hip roof, living room with fireplace, dining room, kitchen, 2 bed rooms with bath between (fireplace in one), sleeping porch, screened porch, large front porch. Cellar for furnace.

Kansas  
71-221

28'x 38'

B-4

Gable roof; living room, dining room, kitchen, rear entrance & washroom, 2 bed rooms with bath & closets between.

Missouri  
1-710-C  
(16)

22'x 38'

B-2-P

Gable roof; 2 bed rooms with bath between, combined living & dining room, sun room, kitchen, wash room, screened porch.

6 RoomsU.S.D.A.  
497

29'x 50'

(3 sheets 20"x27")

Hip roof; combined living & dining room, 2 bed rooms with bath between, kitchen, wash room & laundry, living porch, cellar for furnace.

1½ and 2-Story Houses5 RoomsIllinois  
C-211

22'x 27'6"

B-4

Gable roof extending over 6' front porch; dining room, kitchen, rear entrance, living room with fireplace; second floor 2 bed rooms and bath, closets, full basement with toilet.

6 RoomsU.S.D.A.  
716

32'x 43'

(4 sheets 20"x27")

Living room with fireplace at front, screened porch at rear. Dining room, pantry communicating to kitchen, 2 bed rooms with bath between on one side of living room. Stairs to unfinished attic which has space for 4 rooms. Designed for warm climates. Concrete pier foundations.

Illinois  
C-236

32'x 36'

B-6

Living room with fireplace, dining room, kitchen, bedroom, bath, rear stair hall. 2nd floor, 2 bed rooms, toilet, closets. Screened side porch, basement, gable roof.

7 RoomsKansas  
71-325

28'x 36'

B-4

Gable roof extending over 9' porch. Living room, dining room, bed room, kitchen, bath & stairs. 2nd floor, 3 bed rooms & closets under eaves. Basement. Walls of stucco on hollow tile.



7 Rooms (Cont'd.)Ohio

11-04B-14

26'x 28' B-4-X

Gable roof extending over front porch. Living room with fireplace, dining room, bed room, kitchen, stair hall. 2nd floor, 3 bed rooms, bath, closets, stair hall. Full basement.

71-08-14

29'x 30' B-3-X

Gable roof extending over front porch, living room, dining room, kitchen and office. 2nd floor, 3 bed rooms & bath. Full basement.

11-11-12

28'x 30' B-2-X

Gable roof extending over porches; living room with fireplace, dining room, rear entrance, kitchen. 2nd floor, 3 bed rooms, bath. Cellar.

8 RoomsU.S.D.A.

540

33'x 43' (5 sheets 20"x 27")

(11)

Living room, dining room, 1 bed room & bath, kitchen, laundry & washroom in 1st story; ice house & dairy room in 26'x 30' wing; 3 bed rooms in 2nd story; cellar, furnace flue, front, side & rear porches. Designed for northern & western climates.

Illinois

C-216

34'x 25' B-4-P

(25)

One story flat roof, wings each side; office; washroom, laundry & passage one wing, sun parlor in other; dining room with fireplace; kitchen; central stair hall; living room with fireplace. Second floor, 4 bed rooms, hall & bath, central portion gable roof, brick foundations, drop siding, full basement, 2 chimneys.

C-220

24'x 30' B-4

Gable roof, screened side porch, dining room, kitchen, toilet near rear entrance, small hall, bed room, living room. Second floor 3 bed rooms, toilet, small sewing room. Furnace and laundry in basement.

C-242

28'x 34' B-4

Gambrel roof, living room with fireplace, dining room, kitchen, stair hall, toilet, office. Second floor, 3 bed rooms, sewing room, bath, closets. Full basement, furnace room, storage room & laundry.

Ohio

71-05.14

28'x 37' B-4-X

Colonial design; gambrel roof extending over 10' front porch. Living room across one end with fireplace, central stair hall with wash room at rear, kitchen, dining room with fireplace. Second floor, 4 bed rooms, central hall, bath room at one end. Full basement.

Ohio

11-25.44

32'x 30'

B-4-X

(22)

Living room with fireplace, dining room with pass closet to kitchen, pantry, washroom at rear entrance, bed room, front porch. Second floor, 4 bed rooms & bath, gable roof, cellar for furnace. Brick foundations, drop siding, 2 chimneys.

9 RoomsIllinois

C-214

32'x 29'

B-4-P

Gable roofs, living room with fireplace, sun room, kitchen, dining room; one story addition provides for wash room, refrigerator & stairs to cellar. Second floor, 4 bed rooms, Bath & closets. Laundry & storage in basement.

Designs Not Selected (Comparable)1 Story

- 3 rooms - - -: Va. A-5  
 4 " - - -: U.S.D.A. 689, 1198; Ark. 21-3-206, 21-2-162;  
           ; Ala. A-103; Ky. B-71-102-2.  
 5 " - - -: U.S.D.A. 784; Ind. B-1-1; Va. A-6  
 6 " - - -: U.S.D.A. 694; N. C. 36, 37; Va. A-8, A-21.  
 8 " - - -: N. C. 38

1½ & 2-Story

- 6 " - - -: Ill. C-212 (stucco)  
 7 " - - -: Ill. C-251 (brick); Ohio 71-01-36, 71-18-24;  
           ; S. D. 413; Va. A-7.  
 8 " - - -: Ill. 252; N.C. 99.  
 9 " - - -: Ill. C-219 (brick); N.C. 14  
 11 " - - -: Va. X (brick)



## 11.720 BARN FRAMING AND DETAILS

### U.S.D.A.

- 655 Standard Horse Stall Details B-1 B.M. on Plan  
Details of concrete, plank overlay, and wood block floors.  
Details of partitions & mangers for single & double stalls.
- 1232 Sheep Feeding Rack C-1-P B.M. on Plan  
For barn use, 2'6" wide, length variable, tight trough.
- 1416 Standard Cow Stall Details B-1  
Details of 4 types of raised mangers, 2 types of gutters.  
Details cork & concrete floors. Table for dimensions to  
suit different sized cows.
- 2686 Standard Cow Stall Details B-1  
Shows dimensions for various sized cows & details for  
concrete, board overlay & cork brick floors. Mangers level  
with feed alley.
- 27- Calf & Cow Stanchions B-1 B.M. on Plan  
Shows details for building manger & stanchions for calves  
and details for homemade cow stanchions.

### Arkansas

- 26-4-49 Cross sections only of 24' braced rafter roof, mow to  
plate 6'6", plate to ridge 13', center posts 8'6" apart  
and 16' shed. C-1

### California

- B-106-1 Wood Cow Stanchions, fence panel type, C-1.

### Idaho

- D.H. 14 "Model" cow stall B-1-X  
Chain tie, wooden manger & stall partition.

### Illinois

- C-99-1-1 Cross section braced rafter roof, table gives sizes of  
members for widths of from 28'x 42'. B-1.

### Iowa

- D628-3-1260 Cross section & side framing, Shawver truss; table gives  
sizes of members for widths from 30'x 42'. B-3-P.
- D708-2-1425 "Iowa" gambrel roof truss, 36' span, mow to plate 3'.  
B-2-P.

### Kentucky

- H-3-119-1 Wooden cow stalls with swinging wooden stanchions. B-1-P.

### North Carolina

- 106 Details, wooden truss, 40' span, gable roof.
- 137 Details, scissors truss, 36' span.

North Dakota

772-4-1/1 Wall manger for feed barn.

Ohio

- 21.02.11 Shed Roof Truss B-1-X  
2"x 4" timber, bolted joints, 26' span, trusses spaced  
not more than 12' on centers.
- 23-34-17 Gothic Roof Framing B-3-X  
Barn 34' wide. Provides for sawed ribs 8' on centers with  
intermediate ribs of 1"x 4" lumber spaced 2' on centers.  
Details of ribs, cross section, end and side bracing.

Selected Designs and Comparable Designs Not SelectedSelectedNot Selected

|                  |   |   |
|------------------|---|---|
| U.S.D.A. 655     | : |   |
| " 1232           | : |   |
| " 1416           | : |   |
| " 2686           | : |   |
| " 2701           | : | Ky. H-3-118-1; N. C. 34; Tex. 146               |
| Ark. 26-4-49     | : |   |
| Calif. B-106-1   | : |   |
| Idaho D.H. 14    | : |   |
| Ill. C-99-1-1    | : | Ark. 22-3-105; Ga. 72-181, 72-183, 72-185;      |
|                  | : | Ill. C-93-2-2; Iowa D-629-2-1264, D629-2-1263;  |
|                  | : | Mont. X; N.J. 8, 9; N.Y. D431; N.C. 26, 46, 51, |
|                  | : | 71, 83, 132; Ohio X, X.                         |
| Iowa D628-3-1260 | : | Mont. X; Ohio 23.06.34, 23.05.08; N.Y. C-278.   |
| Ky. H-3-119-1    | : | N. C. 34; Tex. 146.                             |
| N. C. 106        | : |   |
| " 137            | : | Iowa D-630-1-1266.                              |
| N. D. 772-4-1/1  | : |   |
| Ohio 23.34.17    | : |   |
| " 21.02-11       | : | Mont. X.  |
|                  | : |   |
|                  | : | Others:   |
|                  | : | Ill. C248-1-1, C249-1-1; Mont X; N.J. 17, 40;   |
|                  | : | N.C. 31, 134, 136; Tenn. X, X.                  |
|                  | : |   |



# 11.721 GENERAL BARNS

U.S.D.A.

495

Described under Dairy Barns.

## Iowa

D782-2-1645 Braced Rafter Barn 30'x 42' B-2  
Six stanchions one side, facing in; box stall 11'x 12' & feed bins with stairs to mow opposite side; 2 single & 2 double horse stalls across one end; three other floor arrangements shown; mow capacity about 1 ton loose hay per foot of length. Concrete foundations & floor.

## Illinois

C-98-2-1 Braced rafter Barn 36' wide B-2-P  
Eight horse stalls one end; middle of barn has bull pen 9'x 12' and box stall 9'x 9' one side; feed bin 9'x 12', hay chute, harness room opposite side; 10 cow stanchions one end; central drive 12' wide; mow about 1 ton loose hay per foot of length.

C-221-1-1 Bank Barn 36'x 62' B-1  
Windows on 4 sides of basement with bridge to 1st floor; basement, 16 stanchions face out, 10' drive; feed room 12'x 11' and bull pen 12'x 12' on one side, 2 horse stalls & calf pen 11'x 12' on other, all separated from cow stable; posts on 1st floor 10' headroom. Braced rafter roof with dormers, concrete foundations and basement floor.

C-129-2-1 Pole Barn 52'x 56' B-2-P  
Six double horse stalls one side, open front cattle shelter other side, grain bins one end, 4 cow stanchions other end, hay to ground in center, gable roof.

## South Dakota

123 Braced Rafter Barn 34'x 46' B-4  
Seven stanchions face out on one side, 3 stanchions, calf pen 7'6"x 11'6" and mow stairs on other; 4 double horse stalls in separate compartment, mow capacity 1 ton loose hay per foot of length, concrete foundations & floors. Vent ducts suggested.

## Texas

63

Gable Roof Barn 40'x 80' B-2-X  
Two box stalls; 4 cow stanchions separate compartment, 4 bins, 4 double stalls and 1 single stall; hay loft.

Texas (Cont'd.)

16 Barn - covers area 60'x 60' B-1-X  
 Central portion on posts with knee braced gable roof  
 42'x 24'; storage from ground to roof, 38 ton loose hay;  
 lean-to's 18' wide around three sides, 2 for loose cattle -  
 total 35 head. Grain bin 12'x14', 1000 bu.; concrete  
 floor and 6 single horse stalls under 1 lean-to; dirt  
 floor. Concrete foundations & piers, vertical boards &  
 battens.

Virginia

H-19 Braced Rafter Barn 34'x 50'  
 Four single horse stalls; 7 stanchions, 2 box stalls 10'x  
 10', and one 10'x 12'; harness room 6'x 10', feed room  
 12'x 12' with stairs to mow. Four different floor  
 arrangements shown. About 1 ton loose hay per foot of mow;  
 concrete foundations & floor.

H-20 Braced Rafter Barn 34'x 34'  
 Eight stanchions face out one side; 3 box stalls 9'x12'  
 & feed and harness room 4'2"x 12'0" other side; feed room  
 in passage to silo; alternate plan suggested. Concrete  
 floors & foundations to window sills. About 1 ton loose  
 hay per foot of mow.

Selected Designs and Comparable Designs Not SelectedGambrel Roof Barns - Classified by Width

|          | <u>Selected</u>   | <u>Not Selected</u>                         | <u>Tenn. X.</u> |
|----------|-------------------|---|-----------------|
| 30' wide | :Iowa D782-2-1645 | :U.S.D.A. 723; Ky. C-1-37-3; N.C. 70;/      |                 |
| 32' "    | :No selection     | (:Ill. C-266-1-1; Ky. C-1-123-2; Miss. 304  |                 |
|          | :                 | (:Mont. X; N. C. 65.                        |                 |
| 34' "    | :S D 123          | :Ark. 22-3-104; Mont. X,X; N. C. 139        |                 |
| 36' "    | :Ill. C-98-2-1    | (:U.S.D.A. 454, 845, 1267, 1330; Ill.       |                 |
|          | :                 | (: C-268-1-1, C-82-2-1, C-228-1-1;          |                 |
|          | :                 | (:Iowa D-783-3-1647, D-591-2-1198; Mass. X. |                 |
|          | :                 | (:Miss. 309; Mont. X; Ind. A-20; S.D. B-3;  |                 |
|          | :                 | (:Va. H-5a.                                 |                 |
| 40' "    | :No selection     | :Mass. X.                                   |                 |
|          | :U.S.D.A. 495     | :Mont. X, X, X.                             |                 |
|          | :Texas 16         | :U.S.D.A. 612                               |                 |
|          | : " 63            | :U.S.D.A. 621                               |                 |
|          | :                 | :   |                 |
|          | :                 | : Others:                                   |                 |
|          | :                 | : U.S.D.A. 918; Ark. 22-1-169; Tenn.X,X;    |                 |
|          | :                 | : Texas 14; Va. H-10.                       |                 |
|          | :                 | :   |                 |



# 11.722 MULE AND HORSE BARNs

## Illinois

- C-86-1-1 Horse Barn 36'x 36' B-1-P  
Braced rafter roof, studs 6'6" above mow, ridge 17'6" above wall plate. Four double stalls, 1 single stall, 2 box stalls, separate compartment for 2 cows. 100 bu. grain bin. Central feed alley 4' wide. Concrete foundations, earth floors.
- C-128-2-1 Horse Barn 38'x 42' B-2-P  
Braced rafter roof, studs 5'6" above mow, 19' ridge to wall plate, 4 double & 1 single stall on one side of 10' central driveway, 2 double & one single horse stalls, 2 cow stalls & 2 grain bins on opposite side. Concrete foundations & floor.

## Kentucky

- C-2-95-4 Mule Barn 36'x 48' B-4.  
Three double box stalls 12'x12' each side of 12' driveway; 12'x12' corn crib one side & harness room with stairs to mow opposite. Concrete foundations & floors in crib and harness room only; braced rafter roof, studs 4'6" above mow; ridge 20'6" above wall plate. Corrugated roofing.

## Texas

- 135 Horse Barn 24'x 30' B-1  
Six single stalls one side of 2'6" feed alley; 2 corn cribs 10'x 10', 2 grain bins 5'x3' on opposite side; braced rafter roof, studs 3'6" above mow, ridge 12' above wall plate; 10' basement. Concrete foundations & floors in storages.
- 133 Horse Barn 24'x 60'  
One side of barn framed with post & girders for 10 single stalls open front; 4' feed alley through center of barn; one side provides 2 bins 16'x10' & one 10'x32'. Concrete foundations & floors in bins. Gable roof, studs 3'6" above mow, ridge 8' above wall plates. Board & batten sides.

### Designs Not Selected

|                         |                    |
|-------------------------|--------------------|
| U.S.D.A. 453, 641, 1204 | Mont. X.           |
| Ill C-71-1-1            | N. C. 6            |
| Iowa D-502-4-1012       | Ohio (McCulloch)   |
| Mass. X.                | Texas 60, 84, 100. |
| Miss. 408, 420.         |                    |

# 11.723 DAIRY BARNs

## U.S.D.A.

495

Barn 18'6"x 30'6" B-1-P B.M. on Plan  
Two story, gable roof, concrete floors & foundation. 4  
stanchions, feed room 12'x15'; pen for 3 calves. Two  
alternate plans provide for 3 stanchions, 2 single horse  
stalls and feed room; or 2 stanchions & 2 double horse  
stalls.

2673

Barn 18'x 70' B-1-P B.M. on Plan  
One-half of U.S.D.A. Design 1155.  
Ten cows, single row of stanchions at one end and hay  
storage on ground level at other (12½ tons); vertical  
boards & battens, shed roof, concrete foundations.

## California

C-133-5-1

Walk-through Milking Barn B-5-P  
Milk house attached. Barn 19'x 22', 6 stalls, special  
partitions; concrete floor & foundation to window sill;  
1 story; gable roof, continuous over covered passage 6'  
wide to milk house, 19'x 12' & 5'x 6' ell; emptying plat-  
form in passage; provision for cooler, brine tank, cold  
room, gas engine & compressor, milk room & wash room..  
Corrugated metal or shingle roofing, continuous window  
sash in sides.

C-132-5-1

Twelve-Stall Milking Barn 64'x 18' B-5-P.  
Milk house, grain room & barn under gable roof; grain  
room one end 8' wide; barn 38' long; passage 6' wide with  
emptying platform; wooden stanchions; continuous window  
sash inside; concrete floors & foundations to window sills.  
Same milk house as C-133-5-1

C-134-4-1

Thirty-Cow Milking Barn 58'x 34' B-4-P  
Face in; grain room 21'x 8' one end; concrete floor &  
foundations to window sills; gable roof; wooden stanchions.  
Corrugated metal or shingle roofing. Continuous window  
sash in sides.

## Georgia

72-321

Twenty-Cow Barn 56'x 34' B-2  
Face out; grain room 11' wide at one end; gable roof.  
Concrete floor & foundation to window sills. Continuous  
window sash in sides. Ventilated by louvers in gables &  
roof space.

73-311

Ten-Cow Barn 18'x 52' B-2  
Stanchions in one row, feed room at one end 10' wide. One  
story, gable roof, concrete floors & foundations.



Iowa

D795

Barn 64'x 34' B-2  
 Braced rafter gambrel roof; 20 stanchions face out, calf pen, bull pen & 2 cow pens all 10'x13'; feed room 12'x12' at side connecting silo; mow capacity about 1 ton loose hay per foot of length. Details of windows, doors & floor sections not shown. Suggested arrangement of floor for 17, 20, 32 & 36 stanchions.

Kansas

72-351

Thirty-Cow Barn 36'x 84' C-9  
 Shaver truss, gambrel roof, 30 stanchions face in, 2 box stalls at one end, 2 calf pens at other. One story feed room 17' long, connecting barn and silos. Concrete foundations & floor. Hollow tile walls. Mow capacity about  $1\frac{1}{4}$  tons loose hay per foot of length.

Kentucky

C-3-96-4

Barn 60'x 36' B-4  
 Braced rafter gambrel roof, 16 stanchions face out; 2 pens 9'x 13'; 2 calf pens 8'x 13'; feed room 10'x 13' with stairs to mow; dairy room 12'x 16' attached, 1 story. Concrete foundations & floors.

Maryland

723-5

Barn 62'8"x 36'10"  
 Two story, braced rafter gambrel roof; cinder concrete block; 30 stanchions facing out; mow capacity  $4\frac{4}{5}$  ton loose hay per foot of length. Concrete floors & foundations.

Mississippi

224

Barn 32' wide 4 sheets  
 One story, gable roof. Unit constructed, scissors truss, cows face out or in.

Missouri

3-723-C

T-Shaped, 18-cow Barn B-3  
 Braced rafter gambrel roof over hay barn, gable & shed roofs over stables. Hay barn 28'x 30', capacity loose hay from ground level 45 tons; stable in front of hay barn, 18 stanchions facing in, bull pen 9'x 13'; 2 maternity pens 10'x13' each and 1 calf pen 9'x13' opposite stanchions at one end; feed room 30'x14' other end opposite stanchions with crib 5'x12' and oat bin 5'x8', grinding & mixing floor with small bins for mixed feed. Milk house suggested opposite center of barn. Concrete floors & foundations.

Nebraska

10.723-15 Barn 18'x 56' B-3  
Shed roof, 1 story, single row of 10 stanchions, calf pen 11'x 8' in stable; horse box stall 9'x11' and 6'x 8' grain room, partitioned from stable; concrete floor & foundation.

New Jersey

19 T-shaped Barn B-2-X  
Stable 100'x 34', one story gable roof, 50 stanchions face out; head barn, one side bull pen 12'x13'; calf pen 12'x21', maternity pens 10'x12' and 12'x12'; 10' center drive; other side, feed room 10'x12', stairs to mow, calf pens 9'x12' & 8'x12', maternity pens 8'x12' & 10'x 12' Aisles continued from stable into barn No building details. Floor layout and elevations only.

North Carolina

114 Barn Layout B-1-X  
Showing arrangement of 2-story, 36'x 120' lounging barn with feed racks in center; one ell for a one-story barn 36'x 84' for 30 stanchions and 2 feed rooms; one ell for a 1-story barn 36'x 84', 3 calf pens, 5 box stalls, 2 bull pens, 2 feed rooms.

North Dakota

D-19-1-1 Barn 36'x 80' B-1  
Braced rafter barn, 28 stanchions face out. Two calf pens, 2 box stalls, feed room connecting to silo. Concrete foundations & floor.

Texas

148 Shed Roof Lean-to 17'x 46'  
Twelve stanchions face in. Vertical boards & battens.

153 Ten-Cow Barn 17'x 48'  
One story shed roof. Open front on columns; feed room 9'6"x 17' at one end enclosed; concrete floors & foundations.

Virginia

B-15 Six-Cow Barn 18'x 48' B-1-X  
Stanchions in one row; cross drive 10' wide between stable and milk and wash room Cinder block walls, gable roof. Concrete floor & foundations.



Selected Designs and Comparable Designs Not Selected

| <u>Width:</u> | <u>Selected:</u>   | <u>Not Selected</u>                                   |
|---------------|--|---|
| :             | :  | :   |
| :             | <u>Two Story Gambrel Roofs</u>                           |   |
| 40'           | :None  | :Mont. X.   |
| 36'           | :Kans. 72-351 )  | :U.S.D.A. 687, 755, 774; Ill C-93-2-1, C-192-2-1,     |
| "             | :Ky. C-3-96-4 )  | :C-195-1-1; Mont. X, X; N. C. 103; Tenn. X.           |
| "             | :N. D. D.19.1.1)   | :   |
| 36'           | :Md. 723-5   | :Md. 723-3; Va. B-1, B-2, B-3.                        |
| 34'           | :Iowa D-795  | :Ill. C-269-1; Mont.X; N. C. 43, 55; O.O3.02; Va.B-5. |
| 32'           | :None  | :Mont.X.  |
| 30'           | :None  | :Mont.X.  |
| 28'           | :None  | :Ill. C-226-1; Texas 88 (gable roof)                  |
| 18'           | :U.S.D.A. 495  | :N. C. 64, 92 (gable roofs)                           |
| <hr/>         |  |   |
|               | <u>One Story Gable Roof Scissors Truss</u>               |   |
| 34'           | :Miss. 224   | :U.S.D.A. 793, 839; Md. 723-4; N.C. 30; 133, 157;     |
| :             | :  | :Va. B-10, B-8  |
| 36'           | :None  | :U.S.D.A. 2674, 2700 (Mass.X. (not scissors truss))   |
| <hr/>         |  |   |
|               | <u>One-Story - Struts from Girder to Purlin</u>          |   |
| 32'           | :None  | :Ga. 72-322; Ill. 231-2-1.                            |
| 34'           | :Ga. 72-321  | :U.S.D.A. 1155; Md. 723-6; Va. B-3 and 4.             |
| 36'           | :None  | :U.S.D.A. 590   |
| <hr/>         |  |   |
|               | <u>One Story Gable - Tie on Top of Girders</u>           |   |
| 34'           | :Cal. C-134-4-2  | :Ky. C-3-51-3; La. 103; Texas 145, 147, 149.          |
| 32'           | :None  | :Texas 50, 51, 53, 54                                 |
| 24'           | :None  | :Texas 142, 143.                                      |
| <hr/>         |  |   |
|               | <u>One-Story Shed Roof - Single Row of Stanchions</u>    |   |
| 18'           | :U.S.D.A. 2673   | :Ky. C-3-135-1 (Both 1/2 of 36' wide finally)         |
| 18'           | :Neb.10.723-15   | :La. 102; N.M. X, X.                                  |
| 17'           | :None  | :La. 101; Va. B-13 (closed fronts)                    |
| 17'           | :Texas 148   | :Ky. C-35-2-1; N. C. 126 (Lean-to sheds)              |
| 17'           | :Texas 153   | :Texas 52, 141, 144, 152 (open fronts)                |
| 14'           | :None  | :Texas 140.   |
| <hr/>         |  |   |
|               | <u>Combinations of 2-Story Section with 1-Story Ells</u> |   |
| :             | :N. J. 50  | :N. C. 91, 141, 142; N.J. 13; Texas 88.               |
| <hr/>         |  |   |
|               | <u>Miscellaneous Types</u>                               |   |
| :             | :Calif. 132  | :   |
| :             | : " 133  | :   |
| :             | :Ga. 72-3-1  | :   |
| :             | :Va. B-15  | : Miss. 223.  |
| <hr/>         |  |   |
|               | <u>Others:</u>   |   |
| :             | :Mo. 3-723-C   | :U.S.D.A. 1079; Ohio X; Va. B-17                      |
| :             | :N. C. 114   | :Iowa D-1-3-1 (round barn)                            |
| :             | :  | :   |

## BULL BARNs

### U.S.D.A.

1140

Safety Bull Barn 12'x18' B-1-P B.M. on Plan  
One story, bull pen, feed alley, 2 grain bins, 12 bu.  
each, gable roof, concrete foundation & floor, board &  
batten exterior. Wood stanchion & rail. Doors & gates  
arranged to permit handling bull without entering the  
pen. (This design can also be had as Drawing #936  
which provides drop siding, sheathing & iron stanchions).

### Selected Designs & Comparable Designs Not Selected

#### Selected

#### Not Selected

|               |  |
|---------------|--|
| U.S.D.A. 1140 | : U.S.D.A. 936, 945; Md. 7231-3<br>: <u>Shed Roofs</u><br>: Iowa D-796-1-1688; N. J. 63<br>: <u>Yard Layouts</u><br>: N. M. X, N. D. 775-1-1/1<br>:<br>: Others:<br>: Calif. C-126-2-1; N. C. 22.<br>: <u>Special Pen Barns</u><br>: U.S.D.A. 596, 929, 932; Calif. C-139-2-1.<br>:<br>: |
|---------------|--|



# 11.724 CATTLE BARNS

## U.S.D.A.

2714

Ell-shaped Open Front Barn B-1-P B.M. on Plan  
Legs 68' and 24' both 20' wide, gable roof. Drop siding,  
concrete foundations. Shows trough for lot feeding.  
Trough can be built against wall for range feeding.

## Georgia

72-481

Central Barn 24'x 36' B-2  
Braced rafter roof, 16' from ground to wall plate; 12'8"  
from plate to ridge; about 1 1/4 tons loose hay per foot of  
length. Lean-to open feeding sheds each side 16' wide,  
capacity 28 head; concrete foundations, vertical boards  
& battens.

## Illinois

2-260-1

Open front Cattle Shed 20' wide B-1  
To be built in 12' lengths, broken gable roof. Stud wall  
at ends and rear.

## Iowa

D618-2-1243 Hay Feeding Barn 32'x 40' B-2

Feed rack down center to be filled direct from mow; 28  
head; braced rafter roof studs 9' above mow floor, 16'  
plate to ridge. Can be built in lengths of 8' units.

752-1-1576 Open Front Gable Roof Shed 16'x 48' B-1

Three walls of stud construction, 19 head capacity.

## South Carolina

25-D-2

Barn 60'x 80' B-2  
Can be built in 10' bays. Gable roof over central hay  
storage and open sheds on each side; central portion 26'  
wide, plate 19'6", ridge above plate 9'6"; hay capacity  
1 1/3 tons per foot of length, accommodates 56 to 60 head.

## Selected Designs and Comparable Designs Not Selected

### Selected

### Not Selected

|                  |  |
|------------------|--|
| U.S.D.A. 2714    | : Ill. C249-1-1, C260-1; S. D. 132.            |
| Ga. 72-481       | : Calif. C-137-7-1                             |
| Ill. 2260-1      | :  |
| Iowa D618-2-1243 | : U.S.D.A. 1175, 1185; Ill. C97-1-1; Miss. 104 |
| " 752-1-1576     | : U.S.D.A. 2199                                |
| S. C. 25-D-2     | : Ill. C-129-21.                               |
|                  | :  |
|                  | : Others:                                      |
|                  | : Calif. C-125-1, C-139-2-1; Ill. C-83-2-1;    |
|                  | : Iowa D491-4-985; Miss. 114, 118, 120; N C.   |
|                  | : 50, 45; Tenn. X; Texas 57.                   |
|                  | :  |

# 11.725 SHEEP BARNS

## U.S.D.A.

565 Shed 16'x 24' B-1-P B.M. on Plan  
Twenty-five sheep, shed roof, open front, concrete piers,  
boards & batten exterior.

566 Shed 16'x 24' B-1-P B.M. on Plan  
Twenty-five sheep, gable roof, enclosed, concrete piers,  
board & batten exterior.

## Georgia

72-523 Open Front Shed 20'x 38' B-1  
Feed rack down center of pen; 40 sheep; feed room 8'x20'  
one end; concrete foundations & floors in feed room.

## Illinois

C-94-1-1 Barn 32'x 60' B-1  
Two story, braced rafter, 4 pens & feed room 12'x 13'  
each both sides of 6' central alley.

## Iowa

D296-2-635 Barn 36'x 64' B-2  
With one story ell 16'x 24'. Barn arranged with 3 pens  
16'x 14' each side of 4' alley; shepherd's room 9'x 16'  
and feed room 9'x12' at one end, braced <sup>rafter</sup> roof starts from  
mow floor, 20' to ridge; ell 6 pens each side of 4' alley.  
Gable roof, concrete foundations.

## North Carolina

39 Barn 24'x 40'  
Forty-five sheep, ground floor has pen 24'x 30', open front;  
feed room 8'x 10' and space for 8 movable lambing pens  
5'x 4'. Concrete piers, post & girder framing, gable roof.  
Wall plate 3'4" above mow floor, ridge 8'4" above plates,  
corrugated roofing on slats.

## North Dakota

D-51-1-1 Barn 28'x 48' B-1  
100 to 125 ewes; floor not divided except for a ram pen  
and a grain bin each 6'x9' in one corner. Gable roof  
supported on posts & purlins, stud walls, concrete  
foundations.

## Selected Designs and Comparable Designs Not Selected

| <u>Selected</u> | <u>Not Selected</u>                               |
|-----------------|---|
| U.S.D.A. 565    | : N. C. 35 (Mont. X, 70'x 100')(Mont.X, 20'x100') |
| " 566           | :   |
| Ga. 72-523      | :   |
| Ill.C-94-1-1    | :U.S.D.A. 567; Mont X                             |
| Iowa D296-2-635 | :Calif. C-112-5-1                                 |
| N. C. 39        | :N. C. 16   |
| N. D D-51-1-1   | :Calif. C-124-1; Va E-2                           |
|                 | : Others:   |
|                 | : U.S.D.A. 1148; Ill. C-102-1; Tenn. X, X.        |
|                 | :   |



# 11.726 HOG HOUSES

## U.S.D.A:

1752 House 23' x 43'

; Twelve pens 7'x 8'4"; 6 on either side of 6' feed alley. Movable division partitions with hinged fenders. Half-monitor type of roof with windows designed to fit various latitudes so sun's rays will shine on inside pens. Skylights in lower roof; doors of front & two rear end pens open into exercise lots. Ventilation system shown; chimney with thimble for stove; concrete foundations & floors. Frame superstructure. Designed for northern conditions.

## California

C-119-1 Movable House 8'x 8' B-1

Shed roof, rear studs 4'6"; front studs 6'6"; front & rear panel lift up; pig rails; door in side; on skids; studs & horizontal sheathing.

## Iowa

D806-2- House 20'x 40' B-2

1705 Four-foot feed alley; 10 pens 7'4"x 7'0"; 5'x20' feed room one end; concrete & block floor; concrete foundation; studs & drop siding; gable roof; mow 100 cu.ft. volume per foot; 2 metal ventilators 16" diam. & vent ducts through mow; 6 small windows each side, 2 each end; lift doors pens to feed lot; entrance doors in ends. Movable pen divisions with pig rail attached.

## Kansas

72-621 House 22'x 46' B-2

Five-foot feed alley; 10 pens 7'x8'; feed room 10'x8'6"; work room 10'x8'6"; chimney; concrete foundations; hollow tile walls & floor; gable roof with 10 small skylights each side; windows & doors in ends; pen doors to feed lots; 2 metal ventilators 12" diam.; movable metal and wire pen divisions with pig rails attached. Litter carrier track. To be set N. & S.

62-625 Movable House 8'x 14' B-1 B.M.on Plan

Shed roof, two pens. Rear studs 4', front studs 7'. Pen doors on front; panels front and rear open for shade. Provision for straw under roof. Removable partition between pens; pig rails; on skids; studs & horizontal sheathing.

72-634 House 12'x 42' (3 sheets) B.M.on Plan

Broken roof single row, rear studs 4'; front 6'9"; 6 pens 7'x8'; 3'4" feed alley; concrete foundations; studs & drop siding walls; tile & concrete floor; 6 small skylights in roof; doors in ends; pen doors to feed lots; 1 metal ventilator 12" diam.; movable wood pen divisions with pig rails attached; alley fence fixed. To be set N. & S.

Kentucky

C-6-94-1 Movable House 8'x 8' B-1  
 Broken roof, studs 3', ridge 6'; 2 - 9-light 8"x10" sash  
 in each side of roof; door in ends; sides lift up for  
 shade; pig rails. Studs & horizontal sheathing; on skids;  
 air vent in gable.

Louisiana

152 Movable House 8'x 8' B-1-P  
 Gable roof, studs 3', ridge 6'. Roof hinged to open; one  
 side lifts up for shade; vent panel on one side; air vents  
 in gables; door one end; pig rails; on skids. Drawing  
 also shows creep, self feeder, shipping crate, watering  
 barrel, feed trough, rubbing post.

Nebraska

10.726-22 "A" Shaped House 6'x 7' B-1-P B.M. on Plan  
 Five feet to ridge; doors in ends; air vents in gables;  
 portable (no skids); 12" boards for sides covered with  
 galv. metal battens.

Selected Designs and Comparable Designs Not SelectedSelectedNot Selected

|                 |  |
|-----------------|--|
| U.S.D.A. 1752   | : Mont. X, X; N.C. 80; Ind. 40; Va. G-6  |
| Calif. C-119-1  | ( : Cal. C-121-3-1; Ga. 72-614; Ill. C-262-1;<br>( : Md 726-1; N.J. 31; Texas 162; Va G-3.   |
| Iowa D806-2-175 | : Mont. X; S. D. 215.  |
| Kans. 72-621    | ( : U.S.D.A. 679, 680, 758, 1849; Iowa D-221-1-510;<br>( : Kans. 72-626; Mont. X, X, X; N.C. 81; Ind. B56;<br>( : S.D. 213; ? 26-01-2. |
| Kans. 72-634    | : U.S.D.A. 681, 683; Mont. X, X; N.J. 30; S.D. 2161;   |
| Ky. C-6-94-1    | ( : Kans. 72-632; Mo. 10-726-B-1; N.D. D-54-1-1;<br>( : Ind. B-50; S. D 255.   |
| La. 152         | ( : U.S.D.A. 1132; Cal. C-120-1; Iowa D-3-1-6;<br>( : Mass. X; Mont. X, X, X; N.C. 163.  |
| Neb. 10.726-22  | ( : U.S.D.A. 2120; Ga. 72-612; Mass. B-175; Mont.<br>( : X, X; Ind. B-51   |
|                 | :  |
|                 | : Others:  |
|                 | : U.S.D.A. 2121, 2402; Iowa D779-2-1639;   |
|                 | : Mo. 5-726-B-1; Ohio 726-08-11, X; Texas 155;   |
|                 | : ? 26-06-2.   |
|                 | :  |



# HOG EQUIPMENT

## U.S.D.A.

|      |  |       |              |
|------|--|-------|--------------|
| 1448 | Barrel Waterer<br>Sled platform forms trough.  | D-1-P | B.M. on Plan |
| 1450 | Creep<br>Suggestion for enclosing at corner of fence.  | D-1-P | B.M. on Plan |
| 1451 | Breeding Crate<br>Dimensions 10'x2'6" - adjustable.  | B-1-P | B.M. on Plan |
| 1452 | Feed Trough<br>"V" hopper 16" high feeds into trough 2'x8"; each side divided into 4 compartments.   | D-1-P | B.M. on Plan |
| 1453 | Wallow   | D-1   | B.M. on Plan |
| 1471 | Gate<br>Wood rails for 12' opening, 4' high.   | D-1   | B.M. on Plan |
| 1472 | Shipping Crates<br>Three sizes shown.  | B-1-P | B.M. on Plan |
| 1758 | Dipping Vat for Hogs & Sheep<br>Concrete pit showing cutting gates & draining pen.   | B-1   | B.M. on Plan |
| 2612 | Scalding Equipment<br>Suggestion for rigging up scalding tank, platform, hoist and dressing rail to conserve labor when killing.   | C-1-P | B.M. on Plan |
| 2683 | Scalding Equipment<br>Similar to above but designed to be taken down and stored when not in use.   | C-1-P | B.M. on Plan |
| 2709 | Meat Curing Box<br>Outside dimensions 7'x8'x 5', capacity 1800 lb. meat and 1600 lb. ice. Crib work of 2"x4" insulated with sawdust. Concrete floor insulated with cork. Designed for curing meat in the south. A temperature of 36°F. can be secured in this box. | B-1-P | B.M. on Plan |

## Illinois

|           |   |       |  |
|-----------|---|-------|--|
| C-151-1-1 | Waterers<br>"Ahart Waterer" underground concrete tank 2'6" x 2'6" x 4'3" deep with trough & float valve; "Heddon Waterer" wooden box 6'3" x 3'0" x 12". | B-1-P |  |
| C-153-1-1 | Waterer<br>Showing method of supplying barrel waterers sunk below ground in different feed lots by means of float controlled supply.                    | B-1   |  |
| C-123-1-1 | Alfalfa Rack<br>Double feeder. Covered, slatted sides, 4' wide, 5' high, length as desired.   | B-1-P |  |

Illinois (Cont'd)

C-119-1-1 Two-Way Self Feeder B-1-P  
Two division, adjustable slides. 3'6"x 6'0"x 4'0"  
high; gable roof extends over trough.

C-125-1-1 Ear Corn Self Feeder B-1-P  
Two-way, three divisions 4'x12'x4' high, slatted sides,  
hinged gable roof; on skids.

Iowa

D174-1-390 Self Feeder B-1-F  
3'x 15"x 3' high, single way; 4 pigs.

Kentucky

H-2-105-1 Self Feeder B-1-F B.M. on Plan  
6'0"x 3'4"x 3'6" high, 2-way, 10 pigs, 2 divisions, 45  
cu. ft 36 bu. Agitator board, roof hinged, on skids.

Louisiana

153 Breeding Crate B-1-P  
Portable, no skids.

Nebraska

10.776-6 Loading Chute C-1  
2'8" wide, 12' long, on wheels.

South Dakota

5219 Alfalfa Rack B-1-F B.M. on Plan  
3'6"x 8'0"x 3'0"; slats on all sides, portable.

Texas

157 Self Feeder B.M. on Plan  
2'x 4'x 3' high, 1-way, 4 pigs, 2 divisions, 15 cu.ft. -  
12 bu. Individual lids for pigs to raise.

160 Small slop trough 12" wide.

Virginia

G-11 Self Feeder B-1-X-F  
3'x 6'x 4" high, 2-way, 10 pigs, regulating boards, cover  
lifts up, 45 cu. ft. - 36 bu. on skids.



Selected Designs and Comparable Designs Not SelectedSelectedNot Selected

|                  |  |
|------------------|--|
| U.S.D.A. 1448    | : See La. Hog House 152.                         |
| " 1450           | : " " " " 152.                                   |
| " 1451           | :  |
| " 1452           | :  |
| " 1453           | : U.S.D.A. 2151; Ill. C-154-1-1; Iowa            |
|                  | : D632-1-1269                                    |
| " 1471           | :  |
| " 1472           | : See La. Hog House 152.                         |
| " 1758           | : Miss. 807.                                     |
| " 2612           | : Miss. 1522.                                    |
| " 2683           | :  |
| " 2709           | :  |
| Ill. C-151-1-1   | :  |
| " C-153-1-1      | :  |
| " C-123-1        | :  |
| " C-119-1        | : Va G-10  |
| " C-125-1        | :  |
| Iowa D-174-1-390 | : U.S.D.A. 1133, 1164; S. D. 5212                |
| Ky H-2-105-1     | : Iowa D256-1-562; Kans. 77-622; Neb. 10.7726-6. |
| La. 153          | :  |
| Neb. 10.776-6    | : U.S.D.A. 1473                                  |
| S. D. 5219       | : U.S.D.A. 2009                                  |
| Texas 157        | : Miss. 1523                                     |
| " 160            | :  |
| Va. G-11         | : U.S.D.A. 1636; Ark. X; Ga. 77-263;             |
|                  | : Ill. C-122-1-1; Iowa D641-1-1285;              |
|                  | : D-257-1-563; N. D A-9-1-1.                     |
|                  | :  |
|                  | : <u>Others:</u>                                 |
|                  | : Ill. C-158-1-1; Iowa D240-2-547; N.C. 81.      |
|                  | :  |
|                  | :  |

# 11.727 POULTRY HOUSES

## Alabama

14-1-D

House 16'x 20' B-1  
Brick pier foundation; open front; shed roof; roof  
ceiled to ventilate over dropping board; corrugated  
metal roofing on slats; four windows under dropping  
board; nests on front wall. Details of water rack,  
mash feed hopper. 100 hens.

42-1-D

Brooder House 12'x 14' B-1  
Brick pier foundation; shed roof; two pivoted windows,  
8-light 8"x 10" glass; brick brooder stove as illustrated  
in bulletin; 6" metal stove pipe; corrugated roofing on  
slats; roof ceiled and ventilated; concrete, dirt, or  
wood floor.

## Arkansas

23-1-102

Utility Building 10'x 16' C-1  
Poultry room 10'x 8'; open front, sash in side 6-lights  
10"x 10" glass; 20-25 hens. Store room 10'x8' with privy;  
concrete foundations; studs & drop siding; gable roof.

## California

C-68-1-1

Pigeon loft 10'x 18' B-1  
Gable roof, studs 4'2" high, ridge 6'; 6 pens, 36 nests  
each; screen yards; concrete, dirt, or wood floor.

## Georgia

72-731

House 14'x 24' B-2-P B.M. on Plan  
Concrete foundation & floor; open front; sash under  
dropping board; vent under eaves; broken gable roof;  
studs & drop siding; nests on end walls.

72-732

Brooder House 12'x 14' B-2-P B.M. on Plan  
Shed roof; brick foundations, windows in ends & front;  
sloping roosts with wire mesh under along three walls;  
brick brooder stove suggested.

## Iowa

778

Straw-Loft Poultry House 20'x 24' B-2-P  
Gable roof; continuous windows in front; windows in ends  
and under dropping board. Concrete foundations, tile &  
concrete floor. Walls sheathed inside; wire under roosts;  
nests on end walls; vertical siding. Wire covered loft  
door.



Kansas

72-727 Straw-Loft House 20'x 40' B-2-F B.M. on Plan  
Two compartments; gable roof; corrugated roofing on  
2"x 4" framing; open front, windows in ends & under  
roosts; louvres in loft. Nests on partition; vents  
under rear eaves; wire under roosts. Concrete founda-  
tion, tile or concrete floor.

Kentucky

C-7-35-2 Shed Roof House 20'x 20' B-2-F  
Open front & windows ceiled over roosts; sash under  
dropping board; nests on end walls; on wood posts; wood  
floor; vent at rear eaves. Vertical siding.

Louisiana

164 Shed Roof Brooder House 8'x 10' B-1  
On skids; 2 large windows in front. Wire mesh floor.  
Details of reel mash feeder & sun porch.

Missouri

6-727-C1 Straw-Loft House 30'x 30' B-1-F  
Gable roof; concrete foundations & floor; windows on  
all sides. Roosts along rear wall & partition. Nests  
under dropping boards. Vertical siding.

Nebraska

10.727-5 Shed Roof House 20'x 20' B-2  
Windows & door in front; sash under roosts; nests on  
end walls; concrete foundation & floor. Roof and rear  
wall ceiled; vent under rear gable. Detail of broody  
coop, 100 hens.

North Dakota

727-7-1/1 Shed Roof Brooder House 10'x 14' B-1 B.M. on Plan  
Movable, on skids; windows & screens on front; double  
sheathed walls and floor; sloping roosts at rear wall.  
Metal brooder with pipe through roof - 300-500 chicks.

South Dakota

321 Turkey Shed 24'x 24' B-1  
Gable roof, concrete foundations, vertical siding.  
Post and girt framing; earth floor; open wire front.

Selected Designs and Comparable Designs Not Selected

| <u>Selected</u> | <u>: Not Selected</u>  |
|-----------------|--|
| Ala. 14-1-D     | : Colo. B, C; Ill. C-55-2-1, C-81-2-2, C-272-1-1,<br>: C-95-2-2, C-96-2-1; La. 165; Md. 727-1; Miss. 901<br>: Mont. X; N.C. 127, 78, 18; N.M. (adobe);<br>: Ind. A-112-F; Tex. 86, 167, 168; Va. F-15.<br>: Ark. 225; Miss. 901. |
| Ala. 42-1-D     | : Ark. 225; Miss. 901.   |
| Ark. 23-1-102   | :  |
| Calif. C-68-1-1 | :  |
| Ga. 72-731      | : Mass. X.   |
| " 72-732        | :  |
| Iowa 778        | : Ill. C-263-1; Neb. 10.727-14; N.J. 81;<br>: N. D. 80-1-1, X; S. D. 311.  |
| Kans. 72-727    | :  |
| Ky. C-7-35-2    | : Va. F-15.  |
| La. 164         | : Colo. D; Ida. P.H.16; Iowa D784-1-1650;<br>: Kans. 72-7115; Ky. C-7-55-1; Mass. X; Md. 727-2;<br>: Mo. 9-727-B-1; Neb. 10.727-9; Ind. A-111-E;<br>: S. D. 351; Tex. 86, 166; Va. F-5.  |
| Mo. 6-727-C-1   | : Ga. C?, 72-723; Ida. P.H. 3; Ill. C-232-1,<br>: C-263-1; Mo. 7-727-C-1, 3-727-C-1, 5-727-C-1;<br>: Tex. 113, 116.  |
| Neb. 10.727-5   | : N. C. 69, 902; W. Va. X.   |
| N. D. 727-7-1/1 | :  |
| S. D. 321       | :  |
|                 | : Others:  |
|                 | : Ariz. X, X; Colo. A; Ga. C-91; Ida. P.H.4;<br>: Kans. 72-723; Ky. C-7-103-2; Mass. (2 story);<br>: Nev. X; Ohio X; S. D. 351; Va. F-11.  |



# POULTRY EQUIPMENT

## Illinois

C-172-1-1 Details of Nest Boxes. B-1-P

## Kansas

77-725 Outdoor Feeder B-1-P B.M. on Plan  
Two-way, on skids; 8'0"x 2'6"x 3'0" high; over-hanging  
roof.

77-741 Sanitary Runway B-1-P B.M. on Plan  
For chicks; 10'x 12' movable crate covered with wire mesh.

77-743 Summer Shelter B-1-P B.M. on Plan  
Gable roof 10'x 10'; movable on skids, enclosed with wire  
mesh eaves 2'; gable 5'6"; above ground, roosts 2' above  
ground.

## Kentucky

C-11-7271-1 Turkey Brooding Coop B-1-P B.M. on Plan  
5'x 6'x 3' high, roofed at rear and 1/2 each side enclosed  
with vertical siding; front and 1/2 each side enclosed with  
wire mesh, portable, no skids.

C-7-136-1 Poultry Range Shelter B-1-P B.M. on Plan  
9'x 10', movable on skids, gable roof; sides & ends  
covered with muslin and wire mesh, roosts throughout  
whole house. Wire mesh floor.

H-7-108-1 Reel Mash Hopper on Stand 4'x 1'2" B-1-P B.M. on Plan

## Nebraska

10.727-13 Sun Parlor 9'x 4' B-1-P B.M. on Plan  
For brooder house; built like cold frame; wood floor,  
movable on skids. Wire mesh on hinged top.

## New Jersey

86 Burglar Alarm B-1-X  
For farm buildings, diagram showing wiring for 110 volt  
system.

## Selected Designs and Comparable Designs not Selected

### Selected

### Not Selected

|                |   |  |
|----------------|---|--|
| Ill. C-172-1-1 | : |  |
| Kans. 77-725   | : | Ky. H-7-107-1; Neb. 10.7727-3            |
| " 77-741       | : |  |
| " 77-743       | : |  |
| Ky. 11.7271-1  | : |  |
| " C-7-136-1    | : | La 166; Va F-11 & 12; Ga 72-714          |
| " H-7-108-1    | : | Neb. 10.7727-4; Kans. 77-727; Md. 7271-1 |
| Neb. 10.727-13 | : |  |
| N. J. 86       | : |  |
|                | : | Others:                                  |
|                | : | Ohio X, X; Ky. H-7-133-1                 |

11.731 HAY BARNs

U.S.D.A.

500

Hay Shed

B-1-P

B.M. on Plan

To be built in 16' sections or bays 28' spans, capacity 20 tons loose hay per section, concrete piers, lower half open, upper half enclosed with boards & battens, gable roof. Heavy timber framing.

Iowa

D503-1-1016 Hay Shed

B-1

Details for truss, bents to be spaced 12' on centers; span 24'; concrete piers, horizontal rails between bents for vertical siding, 18' from ground to plate, 4' from plate to ridge; gable roof; 11 tons loose hay per foot of length, 2" timber used for framing.

Designs Not Selected

U.S.D.A. 546-7, 656.

Alabama X (Sheet too large)

Iowa D633-1-1270 (measuring ricks)

Montana X (tall hay shed)

N. D 59-1.1 (mowing hay)

Virginia H-12.



# 11.732 CORN CRIBS AND GRANARIES

U.S.D.A.

521

Corn Crib 28' x 32' B-1-P B.M. on Plan

Two cribs 8' x 32' separated by a concrete driveway 12' wide, the whole covered by a gable roof. Each crib has a capacity of 1000 bu. ear corn but the crib can be built larger or smaller. The method of ratproofing can be utilized on other cribs.

984

Granary 14' x 24' B-1-P B.M. on Plan

Two bins each side of building, total capacity 1800 bu. grain. Space available in center aisle for cleaning seed; ratproofed; gable roof; concrete foundations.

1878

Farm Grain Elevator 30' x 30'

10,000 bu. capacity; concrete foundations, crib walls of 2x4's for a height of 25' to plate; monitor for elevator distributor. One bin 9' x 10' in each of four corners, extending to 1st floor level; 3 bins 9'x10' and 3 bins 4'x10' extending to within 9' of 1st floor. Drive through center of building; log dump, pit & elevator located in this drive. Cleaning room on one side of drive and storage room with 10' x 20' shed on other at center of structure. Special pit chutes & bin arrangement to permit easy handling & separate storage of various grains before and after cleaning. The foundations of this structure consist of a reinforced concrete slab under each of the four corner bins and were designed for conditions prevailing in South Dakota. Where the soil is likely to heave due to freezing a different type of foundation should be used.

2294

Portable Grain Bin 10' x 14' B-1-P B.M. on Plan

Capacity 660 bu. grain; studs on outside, no ratproofing; provided with skids for moving.

2297

Farm Grain Elevator 15'8" x 31'0" B.M. on Plan

Two large bins, capacity 5,500 bu. each. Crib walls built of 2 by 4-inch lumber; concrete foundations. Elevating machinery and pit can be housed in a 1-story lean-to.

2393

Granary 12'x25'3" B-1-P B.M. on Plan

Temporary structure designed for use of tenant farmer; material can be salvaged for other purposes. Two bins shown (capacity of each 1,300 bu.); unit construction permitting additional bins; studs on outside; shed roof covered with corrugated metal.

U.S.D.A. (Cont'd)

2587      Corn Crib and Granary    27' x 36'  
 Cribs 8' wide with slatted sides each side of 11' drive;  
 4 grain bins over drive; total capacity 3030 bu. grain.  
 Monitor for conveying machinery; alternate floor designs  
 for either shelling trench or drag doors. Total capacity  
 of cribs 3,920 bu. ear corn. Concrete foundations and  
 floors.

Georgia

73-231      Corn Crib      12' x 16'      B-2      B.M. on Plan.  
 400 bu. with shucks, 700 bu. shucked. On concrete piers,  
 gable roof, tight siding for fumigating.

Iowa

D190-1-433      Seed Corn House 10' x 16'      B-1-P  
 90 Bu. capacity, concrete foundations and floors, gable  
 roof, ventilating doors in sides and roof. Panel racks  
 shown. Tight construction, can be built larger.

D576-2-1170      Community Seed Corn and Vegetable Storage 28'x60' F-2  
 Basement of concrete for storage of vegetables with venti-  
 lators extending through 1st floor to roof, furnace room  
 28' x 20'. 1st story arranged for seed corn hung from  
 ceiling on wires; seed testing room 20' x 28'.

North Carolina

122      Seed House (cotton) 38' x 40'  
 Equipment location indicated, bin 14'x40'x7' high in roof  
 space; gable roof, concrete foundations and floor.

Texas

37      Slatted Corn Crib    12' x 16'      B-1-X  
 On piers, gable roof; 500 bu. capacity, ratproofed.

58      Corn Crib      45' x 32'      B-1-X  
 3000 bu.; gable roof, concrete foundations and floors,  
 bins on both sides 8' center drive. Sheathed tight for  
 fumigation.



Selected Designs and Comparable Designs Not Selected

| <u>Selected</u> |        |   | <u>Not Selected</u>                    |
|-----------------|--------|---|--|
| U.S.D.A.        | 521    | : | Kansas 639                             |
| "               | 984    | : |  |
| "               | 1878   | : | U.S.D.A. 2594                          |
| "               | 2294   | : | " 975                                  |
| "               | 2297   | : |  |
| "               | 2393   | : |  |
| "               | 2587-8 | : | U.S.D.A. 949; Ill. C-72-1, C-73-1;     |
|                 |        | : | Iowa D808-2-1709, D807-2-1707; Ind. 71 |
| Ga. 72-231      |        | : | Ala. 23-1-G; Ark. 195; Texas 90        |
| Iowa D190-1-433 |        | : | Ill. C-194-1-1                         |
| " D576-2-1170   |        | : |  |
| N.C. 121        |        | : |  |
| Texas 37        |        | : | Va. J-2                                |
| " 58            |        | : | U.S.D.A. 888-9                         |
|                 |        | : | <u>Others:</u>                         |
|                 |        | : | Ill. C-273-1-1 (combined barn &        |
|                 |        | : | granary)                               |
|                 |        | : | Mont. X (see hog houses)               |

11.733 SILOS

No Selection made - Subject covered in Bulletins.

Not Selected

U.S.D.A. 657, 670, 729, 921

Iowa D-10-1-25

North Carolina 82, 66



# 11.734 ROOT & FRUIT STORAGE

## U.S.D.A.

894

Sweet Potato Storage House 20' x 40' A-1-P B.M. on Plan 2,500 bu. in bulk or 2,000 bu. in crates; frame structure; gable roof; concrete foundations; 9 slatted bins on each side with 3' aisle; provision for one stove; floor & roof ventilators; windows in sides. Illustrated in Farmers' Bulletin 1442.

1637

Sweet Potato Storage House 16' x 29' B-1-P B.M. on Plan 1,000 bu. in crates; frame; gable roof; pier & girder foundations.

883

Potato Storage Cellar 16' x 20' B-1 B.M. on Plan 1000 bu.; rough log frame and mud sills; fence wire and straw roof covered with earth.

893

Potato Storage Cellar 32' x 51' A-1 B.M. on Plan Capacity 5,600 bu., concrete walls & floor, reinforced concrete posts and roof, bins on each side of 10' driveway, doors at each end. Insulated with covering of earth.

## California

B-128-4-1

Asparagus Packing House 22' x 38' C-4-P Concrete floors and foundation, gable roof with dormers, alternate design with mud sills and corrugated metal siding. For field use.

## Iowa

D576-2-1170 (See under Corn Cribs and Granaries)

D523-1-1063

Fruit Storage 14' x 20' B-1 Concrete basement, raised wood floor. Garage of studs and siding above, gable roof, connected to house by tunnel.

## Kentucky

D-7-125-3

Apple Storage House 16' x 24' B-3 Double sheathed stud walls and ceiling, slatted floor ventilated by openings at top of foundation, central wooden ventilator in roof. Five bins 4'6"x5'x7' high each side, divided into two bins one over the other 3'6" deep. Concrete foundations.

## North Carolina

56

Tobacco Barn 15'8"x17'0" P-1-X-P Convertible into a sweet potato curing house. Concrete block walls; brick furnace located below floor.

Ohio

35-01-24 Apple Storage House 36' x 52' B-4-X  
 Two stories, with 20' x 20' 1-story ell. Work room  
 20' x 44'; office 12' x 20' concrete floors. Storage room  
 36' x 32' with slatted floor and 12' high walls, gable  
 roof 9' above ceiling joists to ridge, space for light  
 storage. Capacity 4500 crates. House shown built of  
 tile. Suggestions and details for building insulated walls  
 of timber and the structure of different dimensions.

Texas

62 Storage Cellar 8' x 11' F-1-X B.M. on Plan  
 Designed for use as a storm cellar.

Virginia

K-1 Apple Packing House 40' x 60'  
 Shed 40' x 20' long attached. Post and purlin framing,  
 Vertical boards & battens, 2 story, gable roof. Concrete  
 foundations, posts spaced in center for 20' aisle. Sliding  
 doors along sides.

K-5 Apple Packing and Storage House 40' x 80'  
 Ventilated basement for common storage; second floor for  
 packing, windows continuous on one side, four large sliding  
 doors on other side. Gambrel roof braced rafters. Space  
 above packing floor for storage of boxes. Concrete base-  
 ment walls, stud superstructure.

J-12 Storage House 16' x 30' B-1-X  
 Cinder block walls, insulated gable roof, walls 8' high,  
 earth floor with removable slats.

J-9a Sweet Potato Storage 20' x 40'  
 Cinder block walls, similar to U.S.D.A. Plan 894. 2500 bu.  
 in bulk, 2000 in crates.

L-3 (See under Tobacco Barns)

Selected Designs and Comparable Designs Not SelectedSelectedNot Selected

|                 |   |   |
|-----------------|---|---|
| U.S.D.A. 883    | : |   |
| " 893           | : | U.S.D.A. 892; Iowa D520-1060; Ohio 1025.  |
| " 894           | : | N. C. 135                                 |
| " 1637          | : | U.S.D.A. 881; Ala. 49-1-6; Ark. 23-1-120. |
| Calif. B128-4-1 | : |   |
| Iowa D523-1063  | : | N. C. 124                                 |
| Ky. D-7-125-3   | : | Va. K-5a.                                 |

|                            |   |  |
|----------------------------|---|--|
| <u>Selected</u>            | : | <u>Not Selected</u> (Comparable)             |
| N.C. 56                    | : |  |
| Ohio 35-01-C4              | : |  |
| Texas 62                   | : | U.S.D.A. 880, 1131; Iowa D533-1-1078         |
| Va. K-1                    | : |  |
| Va. K-5                    | : | N. C. 123; N.J. 35. Ind. A-411.              |
| Va. J-9a (cinder<br>block) | : |  |
| Va. J-12                   | : |  |
|                            | : | Others:                                      |
|                            | : | U.S.D.A. 873, 875, 1255, 2159, 2168, 1362;   |
|                            | : | Mass. X; C-100; N.C. 112; Ohio 1028; Va. K-2 |



# 11.735 TOBACCO STORAGE

## Georgia

73-551

Tobacco Storage House 36' x 24' . . . B-1  
One story gable roof, concrete piers.

## Kentucky

D-7-71-2

Stripping Shed 24' x 14'  
One story, shed roof, posts in ground space for bench and stove, ventilating sash in roof.

D-7-100-2

Dark Fired Tobacco Barn 20' x 48' . . . B-2  
Plate 21' above ground, gable roof with ventilators in monitor, bent construction heavily cross-braced, ground level clear for height of 8'6"; ventilators in concrete foundation 2"x4" tier rails spaced 3' vertically and 4' horizontally, vertical boards and battens,

D-7-134-1

Tobacco Barn 28' x 36' . . . B-1  
17' ground to plate, gable roof, vertical boards and battens with full height vent doors 12" wide hinged at sides; posts set in ground with mud sills between; metal hoods on ridge, tier poles spaced 4' x 4'; length can be extended; capacity 1/2 acre of tobacco each 12' of length.

## Virginia

L-3

Tile Tobacco Barn 18' x 20'  
16' ground to plate; gable roof with ventilating monitor; shed 8' wide attached for fuel and firing of furnace, tier poles spaced 2' vertically, 4' horizontally. Suggestion for converting into sweet potato storage.

## Selected Designs and Comparable Designs Not Selected

### Selected

### Not Selected

Ga. 73-551

:

Ky. D-7-71-2

:

" D-7-100-2

:

" D-7-134-1

:U.S.D.A. 1651, 1936; Ky. D-7-7-3; Va. L-4.

Va. L-3.

:

: Others:

: N. C. 156; Va. L-1, L-2.

# 11.741 IMPLEMENT SHEDS, SHOPS & GARAGES

## Alabama

57-1-H Single car garage 10' x 16' B-1  
Concrete floor and foundations. Gable roof. Doors swing out.

## Iowa

D258-1-564 Farm Shop 20' x 20' B-1  
Concrete block, gable roof, chimney for forge. Double doors on opposite sides for driving through.

D-611-1-1226 Shop and Garage 20' x 40' B-1  
Garage with doors at end of building sliding inside, space for 2 cars. Shop one end with chimney for forge; stairs to mow. Room for storage of seed corn and room for light storage in mow. Braced rafter roof starting from floor, 10' to ridge. Hollow tile walls.

## Louisiana

151 Machine Shed 20' x 60' B-1  
Open front; work shop 10'6" wide at one end; gable roof, concrete foundations, vertical boards and battens.

## Mississippi

1305 Machinery Shed 30' x 100' B-2-X  
Hinged lattice doors both sides to drive through shed; bays 10' wide, gable roof trussed.

## Missouri

3-741-C1 Farm Shop 20' x 14'  
Double doors one end, concrete foundation and floor; gable roof; chimney supported on ties.

## North Carolina

27 Implement Shed 16' x 40' B.M. on Plan  
Open front, shed roof slatted for corrugated metal, vertical boards and battens, concrete pier footings.

120 Storage Garage 18' deep, 20' wide. B.M. on Plan  
Hipped roof, concrete foundations and floors.

Selected Designs and Comparable Designs Not Selected

| <u>Selected</u> | : | <u>Not Selected</u>                                |
|-----------------|---|--|
| Ala. 57-1-H     | : | U.S.D.A. 1154; Md. X; Ohio 41.10                   |
| Iowa D258-1-564 | : | Ohio X.  |
| " D611-1-1226   | : | U.S.D.A. 1475; Ill. C74-1; Iowa D626-2-1257.       |
| La. 151         | : | U.S.D.A. 570; Ala. X; Ky. E-1-36-2; Mo. 2-741-C1;  |
|                 | : | Md. 741-1; Ind. B-80-14.                           |
| Miss. 1305      | : | N. C. 88   |
| Mo. 3-741-C1    | : |  |
| N. C. 27        | : |  |
| " 120           | : | U.S.D.A. 1241; 1243; Ohio 41.11; Ind. B-92; Tex.91 |
|                 | : |  |
|                 | : | Others:  |
|                 | : | U.S.D.A. 1212, 1245, 1247; Ill. C-275-1;           |
|                 | : | Iowa D805-2-1703; Mass. X; N.C. 77; Ohio 741.06;   |
|                 | : | Va. -X.  |



11.743 MANURE PITS

North Carolina  
138

Concrete Pit 20' x 24' B-1-X B.M. on Plan  
Average depth 6', gable roof supported on posts,  
Suggestion for litter track and screening.

Not Selected (Comparable)  
Mass. 3 designs  
U.S.D.A. 1095.

## 11.744 ICE HOUSES (and coolers)

### U.S.D.A.

2684

Ice House 26'x41' B-1-P B.M. on Plan  
Concrete foundation, cinder floor, 10" wall 20' high of staggered 2"x4" studs filled with sawdust, drop-siding and three layers of sheathing (2 inside), gable roof insulated with sawdust and ventilation through eaves and ridge. Vestibule 8' wide inside of house with concrete tank for cans. Capacity 300 Tons of ice.

1622

Refrigerator 3'6"x 5'6"x 9'0" B-1-P B.M. on Plan  
Overhead icer, for ice or cans of iced brine. Designed for use of meat clubs. Capacity 1 average sized beef carcass. Insulated with shavings or sawdust.

2687

Refrigerator 5' x 7'6"x 9' B-1 B.M. on Plan  
Side icer, 4 cakes ice; storage space 4'x4'x6'. Insulated with shavings or sawdust.

2709

Curing Box (See under Hog Equipment)

Not Selected (comparable)

Iowa D161-1-365

S. D. 441.

11.751 MANUFACTURING AND PROCESSING

U.S.D.A.

1215

Smoke House      6'x 8'      C-1-P      B.M. on Plan  
Frame construction, concrete foundations, gable roof.  
Concrete fire box outside with terra cotta pipe duct  
to house.

Mississippi

Smoke House      6'x 8'      C-1-P      B.M. on Plan  
Concrete foundations, frame, gable roof, 10' to plate,  
12' to ridge, fire made inside.



# 11.752 MILK HOUSES & CREAMERIES

## U.S.D.A.

- 833 Milk Cooler B-1-P  
Barrel with cover showing method of circulating water and suggesting use of overflow for supplying stock watering tank.
- 1336 Milk House 10'x 20' B-1-P B.M. on Plan  
Milk, wash and boiler rooms; cooling tank; 1 story frame; shed roof; concrete foundations and floors. Capacity 20 head; adapted to shipping milk and cream in cans.
- 1521 Milk House 7'x 9' B-1-P B.M. on Plan  
One room, 1 story, concrete foundations and floor, gable roof, shows vat for cooling cans of milk.
- 1341 Milk House 12'x 14' B-1-P B.M. on Plan  
One room, 1 story, hip roof; concrete foundation and floor, capacity 20 head; for butter making by hand.
- 2704 Steam Cabinet 3'2"x 3'1"x 5'4" B-1 B.M. on Plan  
Concrete, single door, hood intake, general use with cans.
- 2705 Steam Cabinets B-1  
Single door, hood intake, general use with cans.  
Wooden type 2'6" x 2'6" x 4'10 $\frac{1}{2}$ "  
Metal type 2'6"x 2'6". x 4'6"
- 2706 Steam Cabinet 4'x 3'6"x 6'5" B-1  
Concrete, double door on one side, single door on other. For bottle milk.

## California

- C-141-1-1 Milk House 8'x 16' B-1-P  
Concrete foundations and floors, gable roof; milk room 7'x7' with concrete cooling tank; wash room 7' x 7'.
- C-142-2-1 Separate Milk House 12'x18' B-2-P  
Concrete floors and foundations to window sills; milk room 9'6"x 10'6", with space for cold box. Wash room 7'x10'6", engine room 5'x 5'6". Gable roof.

## Iowa

- D-232-1-530 Milk House 13'x 18' B-1  
Concrete block or tile, hip roof, milk room 10'x5'6" with cooling tank, weigh room 6'4"x 5'8". Wash room 11'x6'4"; engine room 6'8"x 5'6".

Kentucky

D-4-139-2

Milk House 12'x 14' B-2 B.M. on Plan  
Wash room, milk room with water cooling tank, concrete floors, vertical boards and battens for siding, gable roof.

Maryland

752-2

Milk House 12'8"x 26'0" B-1  
Concrete block; gable roof; milk room 10'4"x 11'4"; wash room 11'4"x 9'2"; engine room 11'4"x 4'6".  
(Washington Type)

752-1

Milk Houses 11'4"x 11'4" B-1  
Plans for 11'4"x 9'4" and 9'4"x 7'4" houses; concrete block; gable roof; cooling tank at one end.

Massachusetts

----

Milk Tank 3'x 6'x 2'2" D - rbtaprint.  
Concrete tank lined inside with steel plates over insulation. Tank set 1/2 below floor. Wooden lid.

New Jersey

79

General Purpose Milk House 14'x 20' B-1-X  
Both concrete block and timber details shown. Gable roof; one room 13'x 15', covered stoop 4' wide across front.

78

Milk House 12'x 11' B-1-X  
One room 9'x 11' with insulated concrete tank across one end. Covered stoop, 3' wide, across front. Concrete foundations. Gable roof. Table showing dimensions of buildings and tanks to accommodate from 4 to 12, 10-gallon cans.

85

Retail Dairy Milk House 26'x 20' B-2-X  
Concrete block, gable roof extending over loading platform. Washroom 10'8"x 13'7"; receiving room 4'6"x 10'5", bottling room 10'5"x 16' with space for insulated refrigerator and sterilizer. Boiler room and coal storage 13'6"x 7'8".

North Carolina

107 &amp; 108

Cheese Factory 44'6"x 20'0"  
With 26' x 14' Ell; curing room 12'x 19'; make room 21'x 19'; receiving room 10'x 9'; office 9'x 9'; work & store room 11'x 13' and boiler room 13'x 13' in Ell. High concrete foundations; hip roof.

84

Spring, Pump & Milk House 11'4"x 30'0" B.M. on Plan  
Spring room 9'x 9' with cooling shelves and pipes from spring to tank in 9'x 12' milk room; pump room 8'x 9'; rubble stone walls, hipped wood roof.

Virginia

B-37 Cold Storage Room for Dairies 5'x6'x7' inside.  
Stud walls sheathed outside. Full details and directions for placing insulation.

Selected Designs and Comparable Designs Not Selected

| <u>Selected</u>  | : | <u>Not Selected</u>  |
|------------------|---|--|
| U.S.D.A. 833     | : |  |
| " 1336           | : | :Mass. X; Mont. X; N. C. 90.   |
| " 1341           | : | :Minn. 314.  |
| " 1521           | : | :Iowa D-811; Minn. 305; Ohio X.  |
| " 2704           | : | :U.S.D.A. 2569; N. C. 104  |
| " 2705           | : | :U.S.D.A. 2568; N. C. 20   |
| " 2706           | : |  |
| Calif. C-141-1-1 | : | :Ark. 22-1-131; Ga. 75-221; Ill. C-78-1; Ky. D-4-54-1;<br>:Va. 18.   |
| " C-142-2-1      | : | :Va. B-27.   |
| Iowa D-232-1-530 | : | :U.S.D.A. 633, 1333, 1337.   |
| Md. 752-1        | : | :(Similar to U.S.D.A. 1521 but of cinder block)  |
| " 752-2          | : | :Tex. 55; Va. B-24.  |
| Mass. ---        | : | :Miss. 1520 (also details of tanks on plans)   |
| N. C. 20         | : |  |
| " 84             | : |  |
| " 107 and 108    | : |  |
| " 140            | : |  |
| N. J. 78         | : |  |
| 79               | : |  |
| 85               | : | :Md. 752-3; N.C. 24, 25; Va. B-25A.  |
| Va. B-37         | : | : <u>Others: (Of U.S.D.A.)</u><br>: Milk Houses: 550, 759, 771, 909, 1339, 1342, 1345<br>: Creameries: 533, 1085, 2519, 2523, 2527, 2664<br>: Cheese Factories: 609, 705, 1099, 1661, 2259.<br>: 2348, 2375, 2379, 2446<br>: <u>Others from States:</u><br>: N.C. 94, 105, 113, 145, 147; N.J. 87; Va. B-40. |



11.734 LIME KILNS AND STORAGE

Kentucky

E-7-90-1 Lime Shed 14'x 36' B-1-X  
Heavy framed bins for 3 carloads, concrete pier foundations, loading platform.

J-793-132-1 Diagram for building lime stack (wood fuel) B-1-X-P.

J-793-60-1 Lime Burning Kiln, 9'x12'x10' inside. B-1-X  
Permanent type, rubble rock walls, to be built in side of hill.

Missouri.

3-746-C1 Sixty-Ton Lime Bin B-1-X-P  
Elevated on posts, concrete pier foundation, sloping bin bottoms.

Ohio

44-10-11 Lime Bin B-1-X-P B.M. on Plan  
"Otto Zoellner" type portable lime bin, 14'6"x 7' x \_\_\_\_\_  
average 4'6" high, shed roof.

Others Submitted (not selected)

Ohio 44-04-12  
N.C. 12  
Va. J-16

11.77 LIVESTOCK CONVENIENCES  
(See under Hog and Poultry Houses for Equipment for  
these animals)

U.S.D.A.

- |      |   |        |       |               |
|------|---|--------|-------|---------------|
| 1142 | Breeding Rack   | 4'x 9' | B-1-P | B.M. on Plan. |
|      | Frame, adjustable; designed for cattle.   |        |       |               |
| 1625 | Flood Gate  |        | D-1   |               |
|      | Suggesting method of spanning ravine with pole to which palings are attached so as to swing with a flood. |        |       |               |
| 1855 | Dipping Vat for Cattle and Horses   |        | B-1   | B.M. on Plan. |
|      | Concrete pit showing arrangement of cutting gates and draining pens.                                      |        |       |               |
| 1951 | Cattle Guard  |        | D-1   | B.M. on Plan  |
|      | Suggestion for guard to be built in fence line permitting passage of machines without opening gate.       |        |       |               |
| 2191 | Corner Post Bracing   |        | D-1   |               |
| 2197 | Dehorning Chute and Squeeze Gate.   |        | B-1   | B.M. on Plan  |
|      | Suitable for ranch conditions.  |        |       |               |
| 2685 | Shipping Crate  |        | B-1-P | B.M. on Plan  |
|      | For cow; overall dimensions 3'6"x 8'8"x 5'4"  |        |       |               |

California

- |           |   |             |       |  |
|-----------|---|-------------|-------|--|
| B-111-1-1 | Wooden Cattle Guard   |             | C-1.  |  |
| B-116-1   | Hay Rack for Sheep  |             | C-1-P |  |
|           | Rectangular slatted crate on skids 16'x 2'2" x 3' high.                     |             |       |  |
| C-148-1   | Cattle Stock  |             | B-1-P |  |
|           | Hoof trimming crate of heavy timber with rollers for belt to raise animals. |             |       |  |
| C-90-1    | Farm Gate   | 16' opening | B-1   |  |
|           | Of 1"x4" rails, wooden diagonal sag support from hinged end.                |             |       |  |

Illinois

- |         |  |  |       |  |
|---------|--|--|-------|--|
| C-106-1 | Hay Bunk for Cattle.   |  | B-1-P |  |
|         | On posts; slatted sides.                                       |  |       |  |
| C-103-1 | Grain Bunks for Sheep  |  | B-1-P |  |
|         | V and Box troughs of variable lengths supported by "A" frames. |  |       |  |

Iowa

- D-595-1-1203    Feed Rack for Wagon    B-1-P    B.M. on Plan  
Top dimensions 8'7"x 16'0"; slatted sides flare  
down to fit wagon body.
- D-261-1-570    Two Types of Concrete Corner Fence Posts.    B-1
- D-620-1-1245    Scales Pan    7'6"    B-1  
Sides hinged to platform to fold down.
- D-666-1-1342    Grain Bunk for Cattle    B-1-P  
On posts; trough 12'x 4'x 6" deep.
- D-769-1-1610    Concrete Watering Trough 8'x 3'2"x 2'4"    B-1  
Wooden cover and concrete pavement around tank.

Kentucky

- H-3-27-1    Sheep Feed Rack    C-1-P  
Double feeder, slatted top for hay, tight bottom for  
fine feed 8"x 2'6"x 3' high.
- H-3-118-1    Portable Calf Stanchions.    On skids.
- H-5-128-1    Farm Gate    C-1    B.M. on Plan  
13' opening of 1"x 6" rails.
- H-7-82-1    Sheep Dipping Vat.  
Concrete 10" wide at bottom, 24" wide at top, 5' deep,  
10' long; 4'6" vertical drop; sloping exit to drain-  
ing pens.

North Dakota

- 772-3-1/1    Cattle Feed Bunk    B-1-X-P    B.M. on Plan  
On skids; trough 14'x 2'7"x 12" deep.
- 772-5-1/1    Feed Rack for Cattle    C-1-P    B.M. on Plan  
On skids, 16'x 4'9"x 6' high.

Texas

- 137    Self Feeder for Cattle    C-1-P    B.M. on Plan  
On skids, 15'x 4'x 6' high with overhanging gable roof.  
End supply door; capacity 125 bu. grain; suitable for  
25 to 50 head cattle.
- 136    Hay Feed Rack For Cattle    C-1-P    B.M. on Plan  
On skids; slats for hay and tight bottom for fine feed;  
15'x 5'x 5' high.



Texas (Cont'd)

- 158 "Bolland" Self Feeder for Cattle C-1-X  
Central self feeder 4' wide at bottom, 10' at top,  
10' high, capacity 60 bu. grain per foot of length;  
the whole under shed roof providing shelter to cattle  
while feeding, total width of structure 24'; 15' to  
ridge, length to meet requirements.
- 159 Calf Creep and Feeder C-1-X  
Feeder similar to Texas #137 set in fenced lot with  
openings or creeps in fence or at corners. Suitable for  
from 60 to 80 calves.

Selected Designs and Comparable Designs not Selected

| <u>Selected</u> | : | <u>Not Selected</u>                         |
|-----------------|---|---|
| U.S.D.A. 1142   | : | Calif. B-6-2-1; Iowa C-496-1; Ky. H-3-121-1 |
| " 1625          | : |   |
| " 1855          | : | N.C. 79                                     |
| " 1951          | : |   |
| " 2191          | : |   |
| " 2197          | : | U.S.D.A. 1627; N.M.X.                       |
| Calif. B111-1-1 | : |   |
| " B116-1        | : |   |
| " C147-1        | : |   |
| Ill. C-103-1    | : | Calif. B-115-1; B-117-1                     |
| " C-106-1       | : | U.S.D.A. 1613, 1616; Ill. C-104-1, C-105-1; |
|                 | : | Neb. 10.723-4-1; N.M.X; Va. C-12A.          |
| Iowa D261-1-570 | : |   |
| " D595-1-1203   | : |   |
| " D620-1-1245   | : | U.S.D.A. 1757                               |
| " D666-1-1342   | : | U.S.D.A. 1173; Neb. 10.7724-1; N.M.X.       |
| " D-769-1-1610  | : |   |
| Ky. H-3-27-1    | : |   |
| " H-5-128-1     | : | U.S.D.A. 1471                               |
| " H-3-118-1     | : |   |
| " H-7-82-1      | : | U.S.D.A. 1758; Mass. X; N.D. D-47.          |
| N.D. 772-3-1/1  | : |   |
| " 772-5-1/1     | : |   |
| Texas 136       | : |   |
| " 137           | : |   |
| " 158           | : |   |
| " 159           | : | Others:                                     |
|                 | : | U.S.D.A. 1232, 1757; N.M.X.                 |

# 11.793 EXHIBIT BUILDINGS

## Ohio

No Number

Fairground Exhibit Building 86'x 96'  
Gable roof on posts and purlins, vertical boards and battens; concrete foundations. Central aisle 28'x96' for arena with grandstands each side, providing total of 544 lin. ft. Benches seating 300 to 400 persons. Stable space 15' x 96' rear of each stand. Skylights in ridge for light and ventilation.

No Number

Boys and Girls Exhibit Building.  
Arranged in form of cross with arms 28' wide extending 34' from central square. Gable roofs, concrete foundations and floors. 3640 sq. ft. total floor area.

## Virginia

M-1

Fair Building 50'x 120'  
Gable roof on posts and purlins, vertical boards and battens, monitor with continuous sash. Concrete foundations.

J-8

Stock Judging Pavilion 30'x 60'.  
To be built in side of hill, 1/2 area excavated for stable accommodating 7 box stalls 6'x 7'6", furnace room, shower & small dressing room and ramp up to arena; 1st floor has arena 14'x 60' and grandstand 156 lin. ft. Benches for about 100 persons. Trussed gambrel roof, concrete foundations, dirt floor. General appearance like a stock barn.

## Others Submitted (not selected)

U. S.D.A. 1438 and 1441.

Va. M-4

Texas 117

11.794 TOURIST & CAMP STRUCTURES

California

C-69-3-1

Ranch Dining Hall 56'x 24' B-3  
With kitchen 20'x 16' in ell. Gable roof on trusses,  
concrete footings, wood piers, cellar under kitchen.

Louisiana

-----

4-H Club Camp Kitchen 18' x 26' B.M. on Plan  
Pantry 10'x 18' at rear, concrete foundations and sides  
enclosed with vertical boards, 16'x 18', front portion  
open, on posts with partition 3' high between, gable  
roof over whole.

Massachusetts (to be redrawn)

----

Tourist Overnight Cabin 18'x 30'.  
One room 18'x 9'; two bedrooms 8'6"x 12'; front porch 8'  
wide, gable roof extends over porch; concrete foundations,  
drop siding.

-----

(to be redrawn)  
Tourist Overnight Cabin 10'x 20', one room 10'x 14',  
front porch 6' wide, gable roof extends over porch, con-  
crete foundations, drop siding.

-----

(to be redrawn)  
Farm Office 22'x 22'  
Vestibule, 2 toilets, general and private office indica-  
ted, concrete foundations, hip roof, drop siding.

Not Selected (but of possible use)

U.S.D.A. 2622, 2677, 2671, Tenant houses designed pri-  
marily for plantation labor. (See descriptions  
under Farm Houses 11.71.)



Ohio

No Number      Greenhouse 9'x 18'  
Concrete foundations, vertical sides and ends, 3'  
boarded, sloping top of hot bed sash. Gable 8' high.

35-97-11      Hot Bed Frame      5'8" wide.      B-1-X      B.M. on Plan  
Wooden frames for standard sash.

Massachusetts

-----      Fruit Stands      24'x 14'  
For road-side selling.

|                 |   |                                  |
|-----------------|---|----------------------------------|
| <u>Selected</u> | : | <u>Not Selected (Comparable)</u> |
|                 | : |                                  |
| Ohio X.         | : | Miss. 1518 (Greenhouse)          |
|                 | : |                                  |

11.85 WATER SUPPLY, SEWAGE & PLUMBING

Illinois

C-109-1-1 Cistern filter

Iowa

D147-1-328 Round Water Tank.  
Reinforced concrete, 10' inside diameter, 12' high,  
7000 gal.

D566-1-1138 Square Water Tank.  
Reinforced concrete 10'x 10'x 10' high. Cover of con-  
crete, 7500 gal.

Louisiana

XX Sketches showing barrel tank outside of house filled  
by hose from pump; installation of sink pump.

116 Sketch showing piping from well to elevated tower to  
house plumbing; pump operated by gas engine.

117 Same as 116 with addition of hot water piping.

118 Complete hot and cold water system.

119 Automatic pressure water system.

North Carolina

11 Directions for installing hydraulic rams.

3 Details of water towers 20, 25 and 30' high.

143 Catch basin for spring.

Ohio

87-46-11 Cistern filter.

Illinois

C-69-1-1 Two-chamber septic tank (no syphon)

C-196-1-1 Septic tank forms.

Kentucky

1-19-1 Septic tank - 1 compartment.

Missouri

2-851-A1 Privy with concrete vault.

Mississippi

607 Two-chamber septic tank.

South Dakota

612 Two-chamber septic tank.

Selected Designs and Comparable Designs Not Selected

| <u>Selected</u> | : | <u>Not Selected (Comparable)</u> |
|-----------------|---|----------------------------------|
|                 | : |                                  |
| Ky. 1-19-1      | : | Va. N-10; Md. 8511-1             |
| Iowa D147-1-328 | : | Iowa D-624-1254                  |
|                 | : |                                  |







